

O U T L I N E S
OF THE
N A T U R A L H I S T O R Y
OF —
G R E A T B R I T A I N
A N D
I R E L A N D.

C O N T A I N I N G

A systematic Arrangement and concise Description of
all the Animals, Vegetables, and Fossils which have
hitherto been discovered in these Kingdoms.

By JOHN BERKENHOUT, M. D.

I N T H R E E V O L U M E S.

V O L. II.

Comprehending the VEGETABLE KINGDOM.

L O N D O N :

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P R E F A C E.

IT being probable that this Volume will fall into the hands of many students who are not possessed of the First, it seems necessary to repeat the Explanation of my Design, by informing the young Botanist, that he is to consider this Book, not as a sufficient system of English Botany, but rather as an index to that branch of Natural History; as a pocket-companion in his botanical excursions.

Those who, with an intent to criticise, chuse to consider it in any other light, may very plausibly object to the want of *synonyma* and references; but I have omitted them, first, because they would have swelled this Volume, particularly, to an improper size; secondly, because they are of no use in the field, where the books referred to are not at hand, and where a more ample description, which, by omitting those, I had

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room to add, will be infinitely more welcome; and thirdly, because I suppose the young Botanist will, on his return home, find in his closet Linnæus's *Species Plantarum*, or Hudson's *Flora Anglica*, where he will meet with *synomina* and references to every author of credit; nor will he have the least difficulty in finding, in either of these, any particular plant concerning which he may want to consult other writers; because I have followed the same system, and have retained the same generic and trivial names.

But though I have adapted the system of Linnæus, I have dared, in particular instances, to break his chain, and transpose some of the links. My reasons for this piece of presumption are these:

The Linnæan system is evidently and confessedly artificial; the sole use and intention of which is, to enable a young Botanist to discover the name of any unknown plant, by reducing it, first to its class, then to its Order, then Genus, and finally to its Species. Supposing him, therefore, well acquainted with the characteristics of the

Twenty-four Classes, having gathered a plant with which he is unacquainted, he first examines the parts of fructification, and, without much difficulty, determines the Class. He then fixes the Order; and so proceeds. But if it should unfortunately happen, that the whole Class and Order to which his plant evidently belongs exhibits no such Genus, he is immediately bewildered, and begins to flatter himself that he has discovered a plant unknown to Linnæus. Nor is there any method of finding his mistake, except by comparing the plant in question with every generic character in the whole System.

How strange soever this may appear, it is a case that must frequently happen, in consequence of Linnæus, and Hudson after him, having sometimes arranged particular Species in Classes to which they do not belong, because they were unwilling to separate one or more Species from others of the same Genus. Doubtless, if this could be avoided, without so manifest an inconvenience, it ought. But if Nature be so untractable as not to submit entirely to the

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fetters of Art, we must do the best we can, and of two evils chuse the least. I am sorry to differ from a man to whom the science of Botany owes such infinite obligation; but I humbly conceive, that in all systems, the first grand divisions of Class and Order should be absolute, without exceptions; otherwise the system serves only to perplex the investigation it was meant to facilitate. On this principle, therefore, I have transferred several single Species to their proper Class and Order, referring the reader for their generic character to the Class and Order where the rest of the same Genus are to be found.

In a Natural system this separation would be unpardonable; but in an Artificial one, provided I am thus enabled more readily to identificate the plant in question, it is certainly of no importance that there are other Species of the same Genus in another part of the Book.

Nevertheless, the reader will find an instance or two of Species still improperly classed, owing to inattention, till it was too late;

P R E F A C E. vii

late; the first part of the Volume having been printed before the latter was finished.

I acknowledge my obligation to the Author of the *Flora Anglica*, which has been of considerable use to me in ascertaining the plants which are properly natives of these kingdoms. If I have omitted some Species which may be found in his Book, it is in deference to the opinion of Linnæus, by whom they are rejected.

With regard to typographical errors, I hope they are not numerous: Such, however, as may occur, must be attributed to my distance from the press.

The Third Volume of this Work, containing the Fossile Kingdom, will be published as soon as possible.

Abergavenny,
March 4, 1770.

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The **VEGETABLE KINGDOM** is divided
into Twenty-four Classes; viz.

- Class I. **MONANDRIA**. Flower hermaphrodite,
stamen one.
- II. **DIANDRIA**. Flower hermaphrodite,
stamina two.
- III. **TRIANDRIA**. Flower hermaphrodite,
stamina three.
- IV. **TETRANDRIA**. Flower hermaphrodite,
stamina four.
- V. **PENTANDRIA**. Flower hermaphrodite,
stamina five.
- VI. **HEXANDRIA**. Flower hermaphrodite,
stamina six.
- VII. **HEPTANDRIA**. Flower hermaphrodite,
stamina seven.
- VIII. **OCTANDRIA**. Flower hermaphrodite,
stamina eight.
- IX. **ENNEANDRIA**. Flower hermaphrodite,
stamina nine.
- X. **DECANDRIA**. Flower hermaphrodite,
stamina ten.
- XI. **DODECANDRIA**. Flower hermaphro-
dite, stamina from twelve to nineteen.
- XII. **ICOSANDRIA**. Stamina generally twenty
or more, fixed not to the receptacle,
but to the inside of the calyx.
- XIII. **POLYANDRIA**. Stamina from twenty
to a thousand, fixed to the receptacle.
- XIV. **DIDYNAMIA**. Stamina four, two long
and two short.
- XV. **TETRADYNAMIA**. Stamina six, four
long and two (opposite) short.
- XVI. **MO-**

- XVI. MONADELPHIA.** Stamina united at the base in one body.
- XVII. DIADELPHIA.** Stamina united in two distinct sets.
- XVIII. POLYADELPHIA.** Stamina united in three or more distinct sets.
- XIX. SYNGENESIA.** Anthers united in a cylinder, flowers composite.
- XX. GYNANDRIA.** Stamina inserted in the pistillum.
- XXI. MONOECIA.** Male and female flowers distinct, on the same plant.
- XXII. DIOECIA.** Male and female flowers on different plants.
- XXIII. POLYGAMIA.** Hermaphrodite and also male or female flowers, or both, on the same or different plants of the same species.
- XXIV. CRYPTOGAMIA.** Flowers concealed.

Class I. MONANDRIA.

- Order 1. Monogynia.** Pistillum one.
- 2. Digynia.** Pistilla two.

II. DIANDRIA.

- Order 1. Monogynia.** Pistillum one.
- 2. Digynia.** Pistilla two.
- 3. Trigynia.** Pistilla three.

III. TRIANDRIA.

- Order 1. Monogynia.** Pistillum one.
- 2. Digynia.** Pistilla two.
- 3. Trigynia.** Pistilla three.

IV. TE.

IV. TETRANDRIA.

- Order 1. *Monogynia*. Pistillum one.
 2. *Digynia*. Pistilla two.
 3. *Tetragynia*. Pistilla four.

V. PENTANDRIA.

- Order 1. *Monogynia*. Pistillum one.
 2. *Digynia*. Pistilla two.
 3. *Trigynia*. Pistilla three.
 4. *Tetragynia*. Pistilla four.
 5. *Pentagynia*. Pistilla five.
 6. *Polygynia*. Pistilla many.

VI. HEXANDRIA.

- Order 1. *Monogynia*. Pistillum one.
 2. *Digynia*. Pistilla two.
 3. *Trigynia*. Pistilla three.
 4. *Tetragynia*. Pistilla four.
 5. *Polygynia*. Pistilla many.

VII. HEPTANDRIA.

- Order 1. *Monogynia*. Pistillum one.
 2. *Digynia*. Pistilla two.
 3. *Tetragynia*. Pistilla four.
 4. *Heptagynia*. Pistilla seven.

VIII. OCTANDRIA.

- Order 1. *Monogynia*. Pistillum one.
 2. *Digynia*. Pistilla two.
 3. *Trigynia*. Pistilla three.
 4. *Tetragynia*. Pistilla four.

IX. EN-

IX. ENNEANDRIA.

- Order 1. *Monogynia*. Pistillum one.
 2. *Trigynia*. Pistilla three.
 3. *Hexagynia*. Pistilla six.

X. DECANDRIA.

- Order 1. *Monogynia*. Pistillum one.
 2. *Digynia*. Pistilla two.
 3. *Trigynia*. Pistilla three.
 4. *Pentagynia*. Pistilla five.
 5. *Decagynia*. Pistilla ten.

XI. DODECANDRIA.

- Order 1. *Monogynia*. Pistillum one.
 2. *Digynia*. Pistilla two.
 3. *Trigynia*. Pistilla three.
 4. *Pentagynia*. Pistilla five.
 5. *Octagynia*. Pistilla eight.
 6. *Dodecagynia*. Pistilla twelve.

XII. ICOSANDRIA.

- Order 1. *Monogynia*. Pistillum one.
 2. *Digynia*. Pistilla two.
 3. *Trigynia*. Pistilla three.
 4. *Pentagynia*. Pistilla five.
 5. *Polygynia*. Pistilla many.

XIII. POLYANDRIA.

- Order 1. *Monogynia*. Pistillum one.
 2. *Digynia*. Pistilla two.
 3. *Trigynia*. Pistilla three.
 4. *Tetragynia*. Pistilla four.

Order

- Order 5. *Pentagynia*. Pistilla five. XIX
 6. *Hexagynia*. Pistilla six.
 7. *Polygynia*. Pistilla many.

XIV. DIDYNAMIA.

- Order 1. *Gymnospermia*. Seeds naked.
 2. *Angiospermia*. Seeds in a pericarpium.

XV. TETRADYNAMIA.

- Order 1. *Siliculosa*. Seed in a small, round pod.
 2. *Siliquosa*. Seed in a long, larger pod.

XVI. MONADELPHIA.

- Order 1. *Pentandria*. Stamina five.
 2. *Enneandria*. Stamina nine.
 3. *Decandria*. Stamina ten.
 4. *Dodecandria*. Stamina twelve.
 5. *Polyandria*. Stamina many.

XVII. DIADELPHIA.

- Order 1. *Pentandria*. Stamina five.
 2. *Hexandria*. Stamina six.
 3. *Octandria*. Stamina eight.
 4. *Decandria*. Stamina ten.

XVIII. POLYADELPHIA.

- Order 1. *Pentandria*. Stamina five in each sett.
 2. *Icosandria*. Stamina twenty in each sett.
 3. *Polyandria*. Stamina many in each sett.

XIX. SYN-

XIX. SYNGENESIA.

Order 1. *Polygamia equalis*. Florets all hermaphrodite.

2. *Polygamia superflua*. Florets of the disk hermaphrodite, of the radius female.

3. *Polygamia frustranea*. Florets of the disk hermaphrodite, of the radius neuter.

4. *Polygamia necessaria*. Florets of the radius female, of the disk male.

5. *Polygamia segregata*. Within the common calyx many partial calyces, separating the florets.

XX. GYNANDRIA.

Order 1. *Diandria*. Stamina two, germen twisted.

2. *Triandria*. Stamina three.

3. *Tetrandria*. Stamina four.

4. *Pentandria*. Stamina five.

5. *Hexandria*. Stamina six.

6. *Decandria*. Stamina ten.

7. *Dodecandria*. Stamina twelve.

8. *Polyandria*. Stamina many.

XXI. MONOECIA.

Order 1. *Monandria*. Male flowers with one stamen.

2. *Diandria*. Male flowers with two stamina.

3. *Triandria*. Male flowers with three stamina.

4. *Tetrandria*. Male flowers with four stamina.

Order

Order 5. *Pentandria*. Male flowers with five
stamina.

6. *Hexandria*. Male flowers with six sta-
mina.

7. *Heptandria*. Male flowers with seven
stamina.

8. *Polyandria*. Male flowers with many
stamina.

9. *Adelphia*. Male flowers with one sett
of united stamina.

10. *Syngenesia*. Male flowers with united
antheræ.

11. *Gynandria*. Male flowers with stamina
growing out of the pistillum.

XXII. DIOECIA.

Order 1. *Monandria*. Male flowers with one
stamen.

2. *Diandria*. Male flowers with two sta-
mina.

3. *Triandria*. Male flowers with three
stamina.

4. *Tetrandria*. Male flowers with four
stamina.

5. *Pentandria*. Male flowers with five
stamina.

6. *Hexandria*. Male flowers with six sta-
mina.

7. *Enneandria*. Male flowers with nine
stamina.

8. *Decandria*. Male flowers with ten sta-
mina.

9. *Dodecandria*. Male flowers with twelve
stamina.

10. *Polyandria*. Male flowers with many
stamina.

Order

Order 11. *Monadelphia*. Male flowers with one
set of united stamina.

12. *Syngenesia*. Male flowers with united
antheræ.

13. *Gynandria*. Male flowers with stamina
growing out of the pistillum.

XXIII. POLYGAMIA.

Order 1. *Monoecia*. Polygamy on the same plant.

2. *Diœcia*. Polygamy on different plants.

3. *Trioecia*. Polygamy on three different
plants.

XXIV. CRYPTO GAMIA.

Order 1. *Filices*. Fruit on the back of the leaf.

2. *Musci*. Antheræ sessile.

3. *Algæ*. Root, stem, and leaf all in one.

4. *Fungi*. Mushrooms, &c.

THE

VEGETABLE KINGDOM.

CLASS I.

MONANDRIA.

Stamen 1.

Ord. I. MONOGYNIA.

Pistillum 1.

SALICORNIA. Corolla 0. Calyx inflated, square, intire. Seed 1. Leaves 0.

1. *Herbacea. Marsh Samphire, Jointed Glasswort, or Saltwort.* Herbaceous, spreading, branched; jointed; extremities compressed and bifid. Flowers 3 on each side of each joint. Height about 5 inches. On the sea-shore. Annual. Aug. Sept. There are four or five varieties of this species.

HIPPURIS. Calyx 0. Petals 0. Stigma simple. Seed 1.

1. *Vulgaris. Less Marsh Horse-tail, or Mares-tail.* Stem straight, jointed, ending in a spike.

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spike.

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MONANDRIA. DIGYNIA.

spike. Leaves narrow, growing round the joints, 4, 5, or 6 below, 7—18 above. In springs and bogs. May. Perennial.

II. DIGYNIA.

Pistilla 2A C E A 8 B I.

CALLITRICHE. Calyx 0. Petals 2. Capsule bilocular. Seeds 4.

1. *Verna.* *Vernal Starwort*, or *Star-headed Water Chickweed*. Upper leaves oval, crowded, in form of a star; the rest in pairs. Flowers small, white, androgynous. Stems weak, numerous. Annual. In ponds and ditches. April to July.

2. *Autumnalis.* *Autumnal Starwort*. Leaves in pairs, linear, bifid at the ends. Stems numerous, weak. Flowers hermaphrodite, small, yellowish. In ponds and ditches. Flowers in autumn.

CLASS. HIPURIS. Calyx 0. Petals 0. Stigma 1. Seed 1.

1. *Vulgaris.* Leafy Horse-tail, or *Man-tail*. Stem upright, jointed, ending in a spike.

DIANDRIA. MONOGYNIA.

CLASS II.

DIANDRIA.

Stamina 2.

I. MONOGYNIA.

Pistillum 1.

LIGUSTRUM. Calyx of one leaf, tubular, small, with 4 teeth. Corolla below the germen, monopetalous, regular, funnel-shaped, quadrid. Fruit a berry, with four Seeds.

1. **Vulgare.** *Privet*, or *Prim.* A tall slender shrub. Flowers white, in clusters terminal. Berries black. Leaves in pairs, long, narrow, dark green. In woods and hedges. Flowers in May.

CIRCEA. Flower above the germen. Corolla of 2 petals, equal, expanded. Calyx of 2 leaves, oval, deciduous. Seed 1, bilocular, oblong.

1. **Luticiana.** *Enchanter's Night shade.* Stem erect, about a foot long, with a spike of white flowers on the top. Leaves, in pairs, on long footstalks, deep green, oval but ending in a point. In hedge-bottoms, &c. June, July. Perennial.

2. **Alpina.** *Mountain Enchanter's Night-shade.* Stem weak, partly procumbent, about 4 inches long. Flowers reddish. August.

DIANDRIA. MONOGYNIA.

gust. Perennial. I take this to be only a variety of the last.

VERONICA. Calyx irregular, quadripartite, with sharp points and permanent. Corolla monopetalous, irregular, quadrifid, tubular, the segments oval and spreading. Capsule bilocular. Seeds many.

1. *Spicata. Upright Spiked Male Speedwell.* Stem simple, about 2 foot high, terminated by a spike of small blue flowers. Leaves opposite, minutely notched, small, obtuse. In meadows and pastures. Flowers in June. Perennial.
2. *Hybrida. Welsh, or Bugle-leaved, Speedwell.* Stem erect, near a foot high, terminated by a spike of blue flowers. Leaves opposite, rough, obtusely serrated, broad. July. Perennial. On Craig Wreidhin in Wales.
3. *Officinalis. Male Speedwell.* Stem procumbent, with lateral spikes of blue flowers. Leaves opposite, hairy, oval, pointed, serrated; those near the top are narrow. Flowers in May. Perennial. Among rubbish, and in barren ground.
4. *Serpyllifolia. Little smooth Speedwell, or Paul's Betony.* Stems numerous, partly procumbent, terminated by loose spikes or bunches of pale blue flowers. Leaves opposite, oval, smooth, small, notched, pale. In meadows and pastures frequent. May. Perennial.
5. *Becca-*

DIANDRIA. MONOGYNIA.

5. *Beccabunga. Common Brooklime.* Stem creeping. Flowers blue, in loose lateral spikes, leaves sessile, oval, opposite, thick, notched. In shallow water. June. Perennial.
6. *Anagallis. Long-leaved Water Speedwell, or Pimpernel.* Stem erect, thick, branched, about a foot and a half high. Flowers pale purple, in lateral bunches, numerous. Leaves sessile, long, narrow, serrated. July. In shallow water. Perennial.
7. *Scutellata. Narrow-leaved Water Speedwell, or Pimpernel.* Stem thick, but little branched, about a foot high. Flowers few, on long slender foot-stalks, purplish or white. Leaves sessile, long, narrow, not serrated. June. Perennial. On swampy ground.
8. *Chamædrys. Wild Germander.* Stem weak, but erect, about eight inches high. Flower large, blue, in lateral bunches. Leaves sessile, opposite, oval, pale green, dentated. In pastures. May. Perennial.
9. *Montana. Stalked Speedwell, or Mountain Madwort.* Stalks weak, numerous, inclining, near a foot high, with lateral pale blue flowers on foot-stalks, five or six on each bunch. Calyx hairy. Leaves opposite, wrinkled, on foot-stalks, oval, notched. In hedges and moist woods. May. Perennial.
10. *Agrestis. Germander-leaved Speedwell.* Stems many, weak, and five or six inches high. Flowers solitary, blue, axillary.

Leaves opposite, on foot-stalks, heart-shaped, irregularly indented. In pastures. May. Annual.

11. *Arvensis*. *Chickweed Speedwell*. Root of many small fibres. Stem weak, branched, about four inches high. Flowers pale blue, solitary, axillary, sessile. Leaves opposite, sessile, heart-shaped, irregularly cut on the edges. On old walls, &c. May. Annual.

12. *Hederifolia*. *Ivy-leaved Speedwell*, or *Small Henbit*. Stems weak, numerous, six or eight inches high. Flowers single, blue, small, axillary. Leaves plain, 5-lobed, opposite. In corn-fields. April, May. Annual.

13. *Triphyllos*. *Trifid Speedwell*. Stems numerous, partly erect, about six inches high. Flowers single, blue, axillary. Leaves alternate, deeply divided, the upper into three, the lower into five parts. In sandy fields. April and May. Annual.

PINGUICULA. Corolla and Calyx gaping; the upper-lip trifid, the under bind. Nectarium a spur produced from the petal. Germen globous. Style very short. Stigma bilabiate. Capsule unilocular. Seeds many.

1. *Lusitanica*, *Cornwal*, or *Left Butterwort*. Stems about three or four inches high, naked, not branched. Spur thickest at the end. Flowers pale red. Leaves lie upon the ground in a circle. May. Perennial, in Cornwal on bogs.

2. *Vulga-*

DIANDRIA MONOGYNEA. 37

2. *Vulgaris*. *Common Butterwort*, or *Yorkshire Sa-
nicle*. Stems like the last. Nectarium,
or spur, cylindrical, as long as the petal.
Flowers resemble violets. Leaves thick,
oily, white on the under side. May. Pe-
rennial. Most frequent in the North.

UTRICULARIA. Calyx of two small,
oval, concave, deciduous leaves. Corolla
of one petal ringent or gaping; lips
entire, with a heart-shaped palate be-
tween. A spur produced from the petal.
Stamina very short, curved. Capsule
unilocular.

1. *Vulgaris*. *Common hooded*, or *Water Milfoil*.
Stems naked, with lateral yellow flowers
on slender foot-stalks. Leaves, like fern,
are under water. Nectarium conic. June,
July. Perennial. In stagnant water.

2. *Minor*. *Less Hooded Milfoil*. Nectarium ca-
rinated, or ridged, and the whole plant
much less than the last, near which it is
often found.

LYCOPUS. Calyx of one leaf, tubulat-
ed, semiquinquefid; segments acute. Co-
rolla below the germen, monopetalous,
unequal, tubular, quadrifid, spreading;
the upper segment notched. Stamina,
pistillum, and corolla nearly of the same
height. Seeds 4, naked.

1. *Europæus*. *Water Horehound*. Stem erect,
square, hairy, hollow, about two feet
high. Flowers small, white, surround-
ing the stem at the joints. Leaves large,
sessile, oblong, smooth, opposite, sinua-

8 **DIANDRIA. DIGYNIA.**

ted and serrated. On the banks of rivers and lakes in sandy soil. July. Perennial.

SALVIA. Calyx tubular, striated, of one leaf, 2 lips, dentated. Corolla a single petal, below the germen, tubular, gaping, unequal; the upper lip concave, compressed, notched; the under broad, trifid. Stamina very short and forked. Style long; stigma bifid. Seeds 4, naked.

1. *Pratenfis. Meadow Clary.* Stem upright, firm, angular, near a yard high. Flowers large, purple, in distinct whirls, terminate the stem and branches. Leaves opposite; below, large and notched; above, embrace the stem. July. Perennial. Rare.

2. *Verbenaca. Common Wild Clary.* Stem firm, square, hairy, about two feet high. Flowers small, blue, in whirled spikes like the last. Leaves opposite, irregularly cut and serrated.

II, DIGYNIA.

Pistilla 2.

ANTHOXANTHUM, Calyx a glume, bivalve, with a single flower. Corolla a glume, of two valves, pointed. Seed 1, Inflorescence a spike, terminal.

1. *Odoratum. Spring Grass.* Culm slender, jointed, eight inches long. Spike loose, yellowish. Florets longer than the beard. In meadows, &c. May. Perennial.

CLASS

TRIANDRIA. MONOGYNIA.

CLASS III.

TRIANDRIA.

Stamina 3.

MONOGYNIA.

Pistillum 1.

VALERIANA. Calyx 0, or very small.

Corolla a single petal above the germen, quinquifid, the base gibbous on one side.

Seed naked, single.

1. *Officinalis.* *Great Wild Valerian.* Stem erect, simple, firm, striated, three to five feet high. Flowers terminal, in large tufts, reddish white. Leaves opposite, all pinnated. June, Perennial.

2. *Locusta.* *Corn Salad, or Lamb's Lettuce.* Stem forked, slender, eight or ten inches high. Flowers small, bluish white. Leaves opposite, oblong, obtuse. In corn-fields, &c. April, May. Annual.

CROCUS, Calyx a *spatha*, or sheath of one valve. Corolla of one petal with six equal segments. Stigmata convoluted. Germen below the flower. Seeds many, round.

1. *Sativus.*

40 TRIANDRIA. MONOCYNIA.

1. *Sativus. Saffron.* Flowers purple, the tube of the corolla remarkably long. Leaves long and narrow, with a white rib along the middle.

Phil. Trans. vol. 6. p. 2. pa. 344.

IRIS. Calyx a sheath of two valves. Corolla sexpartite, the segments alternately erect and reflexed. Stigmata like petals. Germen below. Capsule oblong, angular, trivalve. Seeds many, large.

1. *Pseudacorus. Yellow Water-flag.* Stem erect, simple, about a yard high. Flowers large, yellow. Leaves like swords. July. Perennial. On the banks of rivers, lakes, ditches.

2. *Fœtidissima. Stinking Flag-flower, or Gladdon.* Stem angulated on one side. Flowers purplish ash-colour, with the interior segments of the petal spreading. Leaves like the last, but smell disagreeably when bruised. In woods and hedges, &c. June, July. Perennial.

SCHOENUS. Flower aggregate, glumose. Common calyx a bivalve glume or husk. Partial calyx of six parts. Corolla 0. Seed 1.

1. *Mariscus. Long-rooted Bastard Cyperus.* Culm, or straw, round, five or six feet high. Leaves three-sided, prickly edges. In fens and bogs. July, Aug.
2. *Nigricans. Round black-headed Bog-rush.* Culm naked, roundish, yet somewhat two-edged, about a foot high. Leaves roundish with a ridge. One valve of the

TRIANDRIA. MONOGYNIA. II

the common glume long and pointed.
In fens and bogs. June. Perennial.

3. *Ferrugineus. Brown Bastard Cyperus.* Culm naked, round, short, with a double spike. The longer valve of the glume equals the spike in length. July. Perennial. In bogs on high moors. Wales, Westmoreland, &c.

4. *Compressus. Compressed Bastard Cyperus.* Culm naked, somewhat triangular. Glume of one valve, with a compressed distich spike.

5. *Albus, White-flowered Rush-grass.* Culm triangular, leafy, about a foot high. Panicle erect, broad, white. Leaves extremely narrow, convoluted. July. Perennial. In fens.

CYPERUS. Spike imbricated on both sides. Corolla 0. Seed 1, naked.

1. *Longus. Sweet Cyperus, or English Galingale.* Culm about three feet high, triangular, leafy; a leafy supradecomposite umbel, with naked foot-stalks, and alternate spikes. Leaves harsh and somewhat angular. Root long. Odoriferous. July. Perennial. In fens, &c.

SCIRPUS. Glumes chaffy and imbricated on all sides. Corolla 0. Seed 1, beset with short hair.

1. *Palustris. Club-rush.* Culm about a foot long, naked, round, in bundles, each culm terminated by a single cylindrical short spike.

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Spike. July. Perennial. On the banks of rivers, ditches, &c. frequent.

2. *Cespitosus. Dwarf Club-rush.* Culm six or eight inches long, naked, striated, in bundles, each culm terminated by a single short spike, with a bivalve calyx, one valve longer than the other. A short narrow strap about the middle of the culm. July. Perennial. In wet pastures, and sometimes on high ground.

3. *Acicularis. Leaf upright Club-rush.* Culm about two inches long, naked, round, with an oval bivalve spike. Leaves curved, rigid, cylindrical. On bogs, &c. August. Perennial.

4. *Fluitans. Floating Club-rush.* Culm round, naked, leafy, soft, short. Spike single. Leaves linear, plane, in alternate bunches. In ponds and ditches. July, August. Perennial.

5. *Lacustris. Bull-rush.* Culm naked, round, five or six feet high, with several oval spikes on short foot-stalks, near the summit. Common in rivers and fens. July, August. Perennial.

6. *Holoschoenus. Round headed Bull-rush.* Culm naked, round, tall, pointed, with several roundish spikes near the top, on foot stalks, with a diphyllous unequal involucre. July. Perennial. On the sea-coast.

7. *Setaceus. Leaf Rush, or small Plymouth Rush-grass.* Culm naked, round, pointed, about a foot high. Spikes lateral, sessile, few. Leaves numerous, cylindrical, and

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and no thicker than horse-hair. In wet sandy ground. July, August. Annual.

8. *Mucronatus*. *Pointed Bull-rush*. Culm triangular, naked, pointed, about a foot and half long, with a naked conglomerate brownish loose spike. Leaves short, few. July, August. Perennial. On the sea-coast, and on the banks of rivers.

9. *Maritimus*. *Round-rooted Bastard Cyperus*. Culm triangular, naked, with a leafy conglobate loose spike. Leaves stiff and sharp-edged. On the sea-coast and banks of rivers. August. Perennial.

10. *Sylvaticus*. *Millet Cyperus-grass*. Culm triangular, leafy, about half a yard high, with a leafy umbel, composed of crowded spikes on supradecomposite naked foot-stalks. Leaves long and somewhat broad. July. Perennial. In wet ground.

ERIOPHORUM. Glumes, chaffy, imbricated on all sides. Corolla 0. Seed 1, environed by long down.

1. *Polystachion*. *Cotton-grass*. Culm round, slender, about a foot high, with a few plane leaves, and terminated by a pendunculated pendulous spike, resembling when ripe a bale of cotton. June, July. In wet ground. Perennial.

2. *Vaginaturn*. *Hare's-tail Rush*. Culm sheathed, round, about eight or ten inches long, with a single downy spike. Leaves cylindrical, red in the spring, and numerous

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numerous from the root. In bogs on high moors. Early in the spring. Perennial.

NARDUS. Calyx 0. Corolla bivalve, closed, forming a pericarpium to the seed, which is single.

1. *Stricta.* *Mat-grass, or Small-Mat-weed.* Culm about a foot high, with an upright, slender, compact, one-sided spike. Leaves like rushes. In fens, bogs, &c. April—June. Perennial.

II. DIGYNIA.

Pistilla 2.

PHALARIS. Calyx a glume, of two valves, of equal length; a ridge along the back of each, and including the corolla, which is bivalve, and less than the calyx.

1. *Canariensis.* *Manured Canary-grass.* Panicle subovate. Culm round, slender, jointed, from one to two feet high. A single narrow pointed leaf at each joint. Seed white. June to Sept. Annual.
2. *Arundinacea.* *Reed Canary-grass, or Great Reed-grass.* Culm jointed, branched, four or five feet high. Panicles five or six inches in length, oblong, bellying. Leaves broad, striated. July. Perennial. Banks of rivers.

PANICUM.

PANICUM. Calyx a trivalve glume containing a single flower, one valve left, and behind the other. Corolla bivalve, unequal, adhering to the seed, which is single.

1. **Voride.** *Common Panick or Corn-grass.* Culm slender, round, jointed, procumbent, about five inches long. Spike single, reddish, short, cylindrical, harsh. Leaves one at each joint, embrace the culm. July, August. Annual.

2. **Crusgalli.** *Loose Panick-grass.* Culm jointed, leafy, from two to four feet high. Spikes large and loose, divided, subdivided, and bearded. Rachis five angular. August. Annual.

3. **Sanguinale.** *Cock's-foot Panick-grass.* Culm erect, jointed, reddish. Spikes like fingers. Leaves broader than common, with punctured vaginæ. August. Annual.

4. **Dactylon.** *Creeping Panick grass.* Spikes fingered like the last. Leaves narrow. Shoots from the root creeping. July. Perennial. In sandy ground.

PHLEUM. Calyx a bivalve, equal, narrow, compressed, forked glume. Corolla less than the calyx, bivalve, unequal. Stigma plumose. Seed 1.

1. **Pratense.** *Meadow Cat's-tail Grass.* Culm simple, slender, jointed, with vaginal leaves at each joint. Spike cylindrical, two or three inches long, with fringed glumes. July. Perennial.

2. **Arinarium.**

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2. *Arinarium*. *Danish Cat's-tail Grass*, or *Sea Canary Grass*. Culm branched. Spike oval; with fringed glumes. On the sea-shore. July. Annual.

3. *Nodosum*. *Bulbous Cat's-tail Grass*. Culm inclining. Spike cylindrical, smooth. Antheræ white. Leaves oblique. Root bulbous. July, August. Perennial.

ALOPECURUS. Calyx a glume of two equal valves, containing a single flower. Corolla a single concave valve, the length of the calyx, with a long arista. Seed 1.

1. *Bulbosus*. *Bulbous Fox-tail Grass*. Culm erect. Spike cylindrical. Root bulbous. In pastures. June. Perennial.

2. *Pratensis*. *Meadow Fox-tail grass*. Culm tall, erect. Spike somewhat loose. Glume villous. Corolla without arista. In meadows. May. Perennial.

3. *Agrestis*. *Field Fox-tail Grass*. Culm inclining. Spike cylindrical, long and small. Glumes smooth. June, July. Perennial.

4. *Geniculatus*. *Flote Fox-tail Grass*. Culm elbowed at each joint, floating. Spike long, slender, smooth. In ponds, &c. July, August. Perennial.

5. *Panaceus*. *Bearded Fox-tail Grass*. Culm two feet high. Panicle subsperate, bearded, woolly, long. In wet ditches, &c. July. Perennial.

MILIUM.

MILIUM. Calyx a bivalve glume, containing a single flower. Corolla very short, of two unequal valves. Stigmata like pencils. Seed 1.

i. Effusum. Millet Grass. Culm about three feet high. Panicle four or five inches long, and the same in diameter, spreading wide. June, July. Annual. In moist woods.

AGROSTIS. Calyx a bivalve glume. Corolla of two unequal valves, somewhat less than the calyx. Styles reflex and hairy. Stigmata longitudinally rough.

* *Bearded.*

1. Spicaventi. Silky Bent-grass. Culm three or four feet high. Panicle near a foot long, loose, waving, silky; with a very long, stiff arista growing from the exterior petal of each flower. July. Annual. In fields.

2. Rubra. Red Bent-grass. Panicle pyramidal, reddish, and spreading when in flower. Exterior petal smooth, terminated by a recurved arista. July. Annual. In meadows, &c.

3. Canina. Brown Bent-grass. Culm prostrate. Calyx elongated, coloured; dorsal arista of the petals recurved, with a brown joint in the middle. Panicle not spread, July, August. Perennial. In wet meadows.

C

** *Beard-*

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* *Beardless.*

4. *Stolonifera. Creeping Bent-grass.* Culm about a foot long, creeping and striking root; vagina of the upper leaf inflated. Branches of the panicle dense, forked. Glumes equilvalve, minute. August. Perennial. In meadows, but not common.

5. *Capillaris. Fine Bent-grass.* Panicle slender, capillary, spreading. Calyces equal, pointed, coloured. August. Perennial. Common in meadows, &c.

6. *Alba. Marsh Bent-grass.* Culm creeping and striking root. Panicle dense. Calyces equal, coloured. July. Perennial. In ditches, &c. frequent.

7. *Minima. Small Bent-grass.* Panicle filiform. Culm slender and very short. In Wales. Flowers early in the spring.

8. *Sylvatica. Wood Bent-grass.* Panicle dense. Calyces equal. Corolla before flowering shorter, and after, much longer than the calyx. August. Perennial. In the woods near Hampstead, &c.

AIRA. Calyx a bivalve glume containing two flowers. Corolla bivalve, resembling the calyx. Stigmata downy.

* *Beardless.*
9. *Cobulea. Purple Hair-grass.* Panicle dense, blue. Flowers, on foot-stalks, convoluted, pointed. Culm not jointed. Leaves flat. August. Perennial. On barren ground frequent.

2. *Aquatica.*

2. *Aquatica. Water Hair-grass.* Culm creeping. Panicle spreading. Flowers smooth, longer than the calyx. Leaves flat, narrow. Taste sweet. June, July. Perennial. On the banks of rivers, &c.

**** Bearded.**

3. *Cespitosa. Turfy Hair-grass, on great Corn-grass.* Culm about four foot high, but slender. Panicle large, spreading. Petals hairy at the base. Arista erect but short. Leaves long, soft, flat. July. Perennial. In moist meadows and woods.

4. *Flexuosa. Twisted Hair-grass.* Culm almost naked. Panicle whitish purple, divaricated, with winding foot-stalks. Leaves like hair, short. In rocky barren ground. July. Perennial.

5. *Montana. Mountain Hair-grass.* Panicle white, narrowed. Arista long, twisted. Glumes hairy at the base. Leaves like hair. July, August. Perennial. On high barren ground.

6. *Canescens. Grey Hair-grass.* Panicle growing from a sheath. Arista girt in the middle with denticles, brown beneath, whitish above, and somewhat clavated. Leaves like hair. July. Annual. Sandy ground, near the Sea.

7. *Præcox. Early Hair-grass.* Leaves like the former. Sheath angular. Spike loose, small, whitish, with arista at the base of the floscules. Culm short. May, June. Annual. In sandy ground.

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8. *Caryophyllæa. Silver Hair-grass.* Leaves like the rest. Panicle silvery-purple, divaricated; flowers distant; aristæ twisted. Culm short. July. Annual. In sandy ground.

MELICA. Calyx a bivalve glume containing two flowers, with the rudiments of a third between. Corolla bivalve, beardless. Stigmata hairy.

1. *Nutans. Melic-grass, or Red Oat-grass.* Panicle drooping, simple, red. June, July. Perennial. In moist woods.

POA. Calyx a beardless, bivalve glume, containing many flowers. Spike distich or double, oval. Corolla bivalve, compressed, pointed, somewhat longer than the calyx, and rough at the edges. Styles hairy.

1. *Aquatica. Reed Meadow-grass.* Panicle diffuse; spiculæ with six linear flowers. Culm tall. Leaves broad. July. Perennial. On the banks of rivers, &c.

2. *Trivialis. Common Meadow-grass.* Culm erect, cylindrical. Panicle diffuse; spiculæ with three flowers, downy at the base. June—August. Perennial. In meadows and pastures every where.

3. *Angustifolia. Narrow-leaved Meadow-grass.* Culm erect, cylindrical. Panicle diffuse; spiculæ with four flowers, downy. July. Annual. In woods and hedges.

4. *Pratensis. Great Meadow-grass.* Culm erect, cylindrical, half a yard high. Panicle diffuse;

- diffuse; spiculæ with five flowers, smooth. June, July. Perennial. In meadows, &c.
5. *Annua. Annual Meadow-grass, or Suffolk-grass.* Culm oblique, compressed. Panicle diffuse at right angles; spiculæ obtuse. May—September. In meadows, &c. every where.
6. *Pilosa. Hair-leaved Meadow-grass.* Panicle spreading, stiff. Radical leaves like hair. May, June. Annual. In dry pastures.
7. *Rigida. Hard Meadow-grass.* Culm short, stiff. Panicle oblong, tapering to a point, branched. Branches alternate; flowers on one side only. Spiculæ with six or eight flowers. Calyx carinated. July. Annual. On walls and sandy ground.
8. *Compressa. Creeping Meadow-grass.* Culm oblique, compressed. Panicle dense, with flowers on one side only. June. Annual. On walls and other dry places.
9. *Nemoralis. Wood Meadow-grass.* Culm curved. Panicle tapering; spiculæ generally of two flowers, pointed, rough. Leaves narrow. June. Annual. In woods, &c.
10. *Bulbosa. Bulbose Meadow-grass.* Culm with knobs at the bottom. Panicle crisp, spreading a little. Spiculæ with four flowers. July. Perennial. In meadows, &c.

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II. *Cristata*. *Crested Meadow-grass*. Panicle almost a spike. Calyx somewhat hairy, generally containing four flowers, which are longer than the foot-stalk. Petals bearded. July, August. Perennial. On high barren ground.

BRIZA. Calyx a bivalve glume containing several flowers. Spicula distich, heart-shaped. Valves heart-shaped, obtuse; the interior minute. Seed 1, very small.

I. *Minor*. *Small Quaking-grass*. Spiculæ triangular. Flowers seven, shorter than the calyx. July. Perennial. In pastures, rare.

II. *Media*. *Common Quaking-grass*. Panicle loose. Spiculæ oval. Flowers seven, longer than the calyx. Culm about ten inches high, with single vaginal leaves at the joints. Glumes on long slender foot-stalks. July. Perennial. In pastures, &c.

DACTYLIS. Calyx a bivalve acute carinated glume, longer than the flower. Corolla also a glume, compressed, acute. Antheræ forked. Stigmata simple.

I. *Cynosuroides*. *Smooth Cock's-foot Grass*. Culm two feet high, with six broad, smooth leaves, rough at the edges and longer than the culm. Spikes on one side only, diverging. Calyx contains a single flower. August, September. Annual. In marshes, &c.

2. *Glomerata*,

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2. *Glomerata. Rough Cocks-foot Grass.* Panicle of several close spikes, on one side only. June—August. Perennial. In meadows, &c. Vagina of the leaves bivariegated. Leaves rough.

CYNOSURUS. Calyx a bivalve glume containing several flowers; proper receptacle unilateral, leafy. Corolla bivalve; exterior valve longest and concave.

1. *Cristatus. Crested Dog-tail Grass.* Culm about two feet high, jointed, with long narrow vaginal leaves. Bractææ, or floral leaves, pinnatifid. Spike unilateral, fringed, above an inch long, brownish. August. Perennial.

2. *Echinatus. Rough Dog-tail, or Fox-tail Grass.* Bractææ exterior only, alternately pinnated, bearded. Calyx bifloral, sharp-pointed. Floreſcence an unilateral bunch, rough, harsh. July. Annual. On sandy ground.

3. *Cœruleus. Blue Dog-tail Grass.* Culm short. Racemus, or bunch, entire, blue. Bractææ intire. July. Perennial. In high pastures, &c.

FESTUCA. Calyx a bivalve, upright, glume, containing several flowers. Corolla bivalve, longer than the calyx, closed, pointed. Spicula oblong, somewhat cylindrical. Styles short, reflex. Stigmata simple.

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* *Panicle unilateral.*

1. *Ovina. Sheep's Fescue-grass.* Culm square, with a few hair-like leaves. Panicle bearded, compact. June, July. Perennial. In high pastures.
2. *Duriuscula. Hard Fescue grass.* Panicle oblong, drooping, harsh, branched towards the bottom; spiculæ pointing upwards, six-flowered. Leaves like small rushes. In dry meadows, &c. June. Perennial.
3. *Rubra. Purple Fescue-grass.* Panicle loose, rough, red. Spiculæ six-flowered, bearded, except the last flower. Culm semi-cylindrical, June, Perennial. In dry meadows.
4. *Myuros. Wall Fescue-grass.* Culm about two feet high. Panicle spicate, long, drooping. Calyces very small. Flowers rough, long-bearded. June, Annual. On walls, &c.
5. *Bromoides. Barren Fescue-grass.* Spiculæ erect. Calyx with one valve long and pointed, the other small, intire. May, June, Annual. In barren ground.
6. *Elatior. Tall Fescue-grass.* Panicle erect, branched. Spiculæ sub-bearded, the exterior cylindrical. Leaves not very narrow, smooth. July. Perennial. In meadows, &c. but rare.

** *Panicle equal.*

7. *Decumbens. Small Fescue-grass.* Panicle erect. Spiculæ beardless. Calyx longer than the

the flowers. Culm decumbent, short. August. Perennial. In moist barren pastures.

8. Fluitans. *Floting Fescue-grass*. Panicle branched, erect, long. Spiculæ, two or three on each branch, on very short foot-stalks, cylindrical, beardless. In fens and ditches frequent. June, July. Perennial.

BROMUS. Calyx a bivalve, multi-flower, spreading glume. Corolla bivalve; inferior valve larger than the other, obtuse, bifid, with an arista from below the apex. Spicula oblong, cylindrical, bilateral.

1. Secalinus. *Field Broom-grass*. Culm three feet high. Panicle spreading; glumes smooth; spiculæ oval; beards straight. Leaves rough on one side. May, June. Annual. In meadows, &c.
2. Tectorum. *Wall Broom-grass*. Culm slender. Panicle drooping; glumes fringed. Leaves and vaginæ downy. Florets 8. May. Annual. On walls and barren pastures.
3. Sterilis. *Barren Broom-grass, or Wild-Oats*. Culm about one foot and a half high. Panicle spreading, drooping; spiculæ oblong, bilateral. Glumes large, sharp, six or seven-flowered. Leaves smooth and not very narrow. June, July. Annual. Woods, fields, hedges, &c. frequent.
4. Arvensis:

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4. *Arvensis*. *Corn or Wood Broom-grass*. Panicle branched, scattered, drooping. Spiculæ oblong, compressed. Leaves somewhat broad, soft. July. Annual. In corn-fields, &c.
5. *Giganteus*. *Tall Broom-grass*. Panicle drooping. Spiculæ four-flowered; aristæ short. Leaves broad. August. Perennial. In moist woods and ditches.
6. *Racemosus*. *Cluster Broom-grass*. Panicle a simple racemus or bunch; pedicles alternate, bearing a single oval, pointed flower. Leaves woolly beneath.
7. *Pinnatus*. *Spiked Broom-grass*. Culm undivided. Spikes alternate, sub-seffile, cylindrical; the plane side towards the culm. Beards terminal. June. Perennial. In dry meadows.

STIPA. Calyx a bivalve, one-flowered, loose, pointed glume. Corolla bivalve, equivalve; the exterior terminated by a very long twisted arista, jointed at the base.

1. *Pennata*. *Feather-grass*. Beards feathered. On mountains, July, August. Perennial.

AVENA. Calyx a bivalve loose glume. Corolla bivalve, with a dorsal spiral arista.

1. *Elatior*. *Fall Oat-grass*. Culm about three feet high, jointed. Panicle long and loose. Calyx with two flowers, the hermaphrodite

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amphrodite floscule beardless, the male bearded. Root three or four bulbs one above the other. Leaves harsh. July, August. Perennial. In meadows, &c.

2. *Nuda. Naked Oats, or Pilcorn.* Paniculate. Calyx three-flowered. Receptacle exceeds the calyx. July. Annual. In corn-fields, but scarce.

3. *Fatua. Bearded Oat-grass.* Panicle spreading; calyces three-flowered, base of the floscules hairy. Culm jointed. August. Perennial. In corn-fields.

4. *Flavescens. Yellow Oat-grass.* Panicle loose, yellowish; calyces three-flowered, short, all the floscules bearded.

5. *Pratensis. Meadow Oat-grass.* Panicle spicate. Calyces five-flowered. Leaves rolled inwards. July. Perennial. In high pastures, on a chalky soil.

6. *Pubescens. Rough Oat-grass.* Calyces generally three-flowered, base hairy. Panicle purplish shining white. Leaves plane, downy. On downs and dry pastures. June. Perennial.

ARUNDO. Calyx a bivalve glume, erect. Corolla bivalve. Florets compact, beset with down. Seed 1, downy.

1. *Phragmites. Common Reed-grass.* Culm jointed, hollow. Calyces five-flowered. Panicle loose. Leaves long, sharp-edged. July. Perennial. In rivers, lakes, &c. frequent.

2. *Epigejos:*

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2. *Epigejos. Small Reed-grass.* Panicle erect, green; calyx one-flowered. Leaves smooth beneath. July. Perennial. On barren hills.

3. *Calamagrostis. Branched or Woolly Reed-grass.* Culm about four feet high, rough, with few joints, branched. Calyces one-flowered. Panicle spicate, soft, white. June, July. Perennial. In moist woods and hedges.

4. *Arenaria. Sea Reed-grass, or Mat-weed.* Spike long, soft. Calyces one-flowered. Leaves sharp-pointed, the edges rolled inwards. June, July. Perennial. On the sea-shore.

LOLIUM. Calyx a glume of one leaf, containing several flowers on bilateral sessile spikes.

1. *Perenne. Red Darnel.* Culm jointed, about a foot long. Spikes beardless, flat, red. Leaves narrow. June. Perennial. In fields and roads frequent.

2. *Temulentum. White Darnel.* Culm two feet or more in length, slender, jointed. Spike bearded, flat, near a foot long. July, August. Annual. In corn-fields.

ELYMUS. Calyx lateral, bivalve, aggregate, containing several flowers. Spiculæ two.

1. *Arenarius. Sea Lyme-grass, or Quick-grass.* Culm jointed, about a foot long. Spike erect,

erect, long, downy. Spiculæ with two flowers, beardless, shorter than the calyx. Leaves involuted, sharp-pointed, whitish. May, June. Perennial. On the sea-shore.

2. *Caninus*. *Bearded Quick-grass*, or *Dog-grass*. Spike drooping, contracted. Calyces subulate, with four flowers, bearded. June, July. Perennial. In woods and hedges. *Huds. Fl. Ang. p. 45, N. 2.*

SECALE. Calyx a glume of two leaves, containing two flowers. Corolla bivalve, the exterior ending in a beard.

1. *Villosum*. *Wood Rye-grass*. Scales of the calyx wedged-shaped; fringe of the glume woolly. July. Annual. In woods and hedges.

HORDEUM. Calyx a glume with six leaves, containing three flowers, sessile. Corolla bivalve, bearded.

1. *Murinum*. *Wall Barley grass*. Culm about six inches long. Spike resembles an ear of barley. Lateral flowers male, bearded. April—July. Annual. On walls, &c.

2. *Nodosum*. *Knotted Barley-grass*. Lateral flowers beardless. Taller than the last.

TRITICUM. Calyx a bivalve glume, solitary, sessile, generally containing three flowers. Corolla bivalve, one valve bellying, the other plane.

1. *Junceum*.

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1. *Junceum*. *Rush Wheat-grass*. Calyx truncated, with five flowers. Leaves involuted; pungent, rush-like. Perennial.
2. *Repens*. *Common Wheat-grass*, *Dog's-grass*, or *Quick-grass*. Calyx taper, pointed, three-flowered. Culm jointed. Root creeping. Leaves sharp-edged. June—August.
3. *Maritimum*. *Sea Wheat-grass*. Culm about seven inches long, sometimes branched a little. Spike branched, spiculæ, with eight or ten flowers, alternate, sessile. Leaves as long as the culm, with purplish vaginæ. May, June. Perennial. On the sea-coast. *Fluds. Flor. Angl.*

p. 35. N^o 2.

III. TRIGYNIA.

Pistilla 3.

MONTIA. Calyx, perianthium, of two leaves. Corolla monopetalous, irregular, quinquepartite. Capsule unilocular, trivalve. Seeds 3.

1. *Fontana*. *Water Chickweed*, or *Blinks*. Culm creeping, reddish, very short, branched. Leaves opposite. Flowers small, white, on long foot-stalks. N. B. The calyx has sometimes three leaves, and the corolla five stamina. April. Annual. In brooks, &c.

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CELLA S S IV.

TETRANDRIA.

Stamina 4.

MONOGYNIA.

Pistillum 1.

VERBENA. Calyx of one leaf, angular, tubular, linear, with five teeth, one of them truncated, permanent. Corolla monopetalous, irregular, tubular, with five slight segments in the rim. Stamina 4, very short and unequal. Style as long as the tube. Seeds 4, naked.

Officialis. *Nervum* Stem single, square, stiff, somewhat hairy, and branched. Leaves opposite, oblong, and deeply sinuated. Flowers small, blue, on long loose spikes. July. Annual.

Corolla irregular, of one Petal.

DIPSACUS. Common calyx of many leaves, containing several flowers. Proper calyx above the germen, very minute. Corolla monopetalous, quadri- fid, tubular, the external segment largest. Receptacle conic, with a great number of sharp palea. Seed single.

1. Fullonum.

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1. Fullonum. *Manured Teasel*. Culm three or four feet high, branched, beset with prickles. Leaves sessile, serrated, opposite, with a row of prickles on the back middle rib. Aristæ of the fruit curved downward. July. Biennial. In hedges.
2. Pilosus. *Small Wild Teasel*, or *Shepherd's Staff*. Head roundish, about the size of a nutmeg. Leaves on foot-stalks, with two small wings at the base. In moist ground, hedges, &c. August. Biennial.

SCABIOSA. Common calyx, of many leaves, surrounding the receptacle in various series, containing several flowers, and spreading. Proper calyx double, above the germen. Corolla monopetalous, tubular, of four or five slight segments. Receptacle chaffy, roundish. Seed single, crowned.

1. Succisa. *Devil's-bit*. Corollulæ quadrifid, regular. Stem round, solid, single. Branches near each other. Leaves oval, pointed, opposite. Flowers blue. June---August. Perennial. In meadows, &c.
2. Arvensis. *Field Scabious*. Corollulæ quadrifid, radiant. Stems two or three, about three feet high, hairy, round, hollow. Leaves hoary, oblong, divided on the edges. Flowers numerous, blue. August. Perennial. In corn-fields, &c.
3. Columbaria. *Less Field Scabious*. Corollulæ quinquefid, radiant. Radical leaves oval, notched; stem-leaves pinnated and very

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very narrow. June, July. Perennial.
In high pastures.

**** Corolla regular, of one petal, above the germen.**

SHERARDIA. Calyx small, of one leaf, quadridentate, permanent. Corolla funnel-shaped, with four segments, acute, plane; tube long, cylindrical. Seeds two, tridentate.

1. *Arvensis.* *Little Field Madder.* Stems several, square, proscumbent, hairy, branched, reddish. Leaves in whorls, at the joints of the stem. Flowers terminal, blue. May, June. Annual. In corn-fields.

ASPERULA. Calyx small, quadridentate. Corolla funnel-shaped; tube cylindrical, long; segments four, obtuse, reflexed. Fruit two dry berries. Seed single.

1. *Odorata.* *Woodroof.* Stems several, square, weak, near a foot long. Leaves eight in number, in whorls, lance-shaped. Flowers white, in clusters, on foot-stalks, odoriferous. May. Perennial. In woods, &c.

2. *Cynanchica.* *Squinancy Wort.* Stems several, small, weak, square, branched. Leaves smooth, narrow, four at each joint. Flowers terminal, in clusters like umbels, reddish, smell sweet. July. Perennial. On chalky hills.

GALIUM. Calyx small, of one leaf, with four teeth. Corolla regular, monopetalous.

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no petalous, plane, without tube, with four segments, acute. Fruit two dry berries, each containing a single seed.

1. Palustre. *White Lady's Bedstraw*. Stem diffuse, square, slender, weak, about eighteen inches long. Leaves in fours, unequal, somewhat oval, pointed. Flowers numerous, in clusters, terminal, small, white. Fruit smooth. July. Perennial. Banks of rivers, &c.

2. Uliginosum. *Marsh Goose-grass, or Cleavers*. Stem square, weak, rough, about eight inches long. Leaves, generally six at each joint, lance-shaped, rough, rigid. Flowers white, terminal, in clusters; corollæ larger than the fruit. Fruit smooth. July, August. Perennial. On commons, moist pastures, &c. Hampstead-Heath.

3. Spurium. *Smooth-seeded Goose-grass*. Stems square, numerous, about a foot long; joints single. Leaves lance-shaped, six round each joint, carinated, rough. Flowers white, terminal. June. Annual. In corn-fields, rare.

4. Pusillum. *Least Lady's Bedstraw*. Stems numerous, square, five or six inches long. Leaves generally eight at each joint, somewhat imbricated, linear, acute, rough. Branches not very numerous, alternate. Flowers white, on foot-stalks twice divided. Seed smooth. August. On the mountains in Westmoreland.

5. Verum.

5. *Verum. Yellow Lady's Bedstraw, or Cheeseweed.* Stem firm, erect, brown, square. Leaves generally eight in each whirl, linear, pointed, brittle; and often reflex. Branches short, generally two from each joint, terminating in spikes of small yellow flowers. July, August. Common, in dry ground.

6. *Mollugo. Wild Madder, or great Bastard-Madder.* Stem square, branched, three or four feet long, very weak. Leaves, eight at each joint, smooth, soft, blunt-pointed. Flowers small, white, numerous, in several spikes on the tops of spreading branches. June, July. Perennial. Hedges, heaths, &c. common.

7. *Boreale. Crosswort Madder.* Stem erect, square, reddish, about a foot long. Leaves, four at each joint, smooth, lance-shaped, trinerved. Flowers small, white, in spikes on the tops of the branches. Seed rough. June—August. Perennial. On hills in the north.

8. *Aperine. Cleavers or Goose-grass.* Stem square, very rough, jointed, very weak, two, three, or four feet long, adhesive. Branches opposite. Joints hairy at the base. Leaves, eight or ten at each joint, narrow, pointed, above rough, beneath smooth, carinated. Seeds rough. Flowers white, small, few, on slender foot-stalks on the tops of the branches. May—August. Annual. In fields, &c. frequent.

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9. *Parisiense. Leaf Goose-grass.* Stem about 3 foot long, weak, square, rough. Leaves seven at each joint, narrow, pointed, rough especially on the edges. Branches opposite, short, bearing small white flowers, two or three on each foot-stalk. Seeds rough. July. Perennial. On walls and in moist barren ground.

RUBIA. Calyx minute, of one leaf, with four teeth, above the germen. Corolla of one petal, campanulate, with four segments, plane, acute. Fruit two round succulent smooth berries, with each a single seed.

1. *Perogrina. Wild Madder.* Stem, about a foot long, square. Leaves four at each joint, elliptical, smooth, and bright above, rough beneath. Flowers on the tops of the branches, yellow, small. July, August. Perennial. In the west of England frequent.

SANGUISORBA. Calyx of two very short leaves, soon falling off. Corolla quadrifid, spreading, germen between the calyx and corolla. Capsule unilocular, opening transversely. Seeds many, small.

1. *Officinalis. Burnet.* Stem three feet high, round, striated, smooth, hollow. Leaves pinnated, smooth, glossy, alternate. Spike short, oval, brown. June, July. Perennial. In meadows and pastures frequent.

*** Corolla

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*** Corolla of one petal, regular, below the germen.

PLANTAGO. Calyx quadrifid, erect, very short, permanent. Corolla monopetalous, quadrifid, reflex. Stamina very long. Capsule bilocular, opening transversely. Seeds many. Florescence a spike, terminal.

1. Major, Great Plantain, or Waybread. Stalk naked, eight or ten inches long, tough, cylindrical. Spike long, cylindrical, imbricated. Leaves oval, smooth, with seven longitudinal ribs. June, July. Annual. Common.
2. Media, Hoary Plantain. Stalk naked, cylindrical. Spike cylindrical. Leaves ovato-lanceolated, downy. July, August. Perennial. Common.
3. Lanceolata, Ribwort, or Ribwort-plantain. Stalk angular, naked. Spike somewhat oval, naked. Leaves lance-shaped, with five ribs. June—August. Perennial. In meadows, &c. frequent.
4. Maritima, Narrow-leaved Plantain. Stalk naked, cylindrical, eight or ten inches high. Leaves narrow, semi-cylindrical, more woolly at the base. June, July. Perennial. On the sea-coast.
5. Coronopus, Buck's-horn Plantain. Stalk naked, round, five or six inches long, with a slender spike. Leaves narrow, pinnated, dentated, lying on the ground in the form of a star. July, August. Annual. On barren ground.
6. Loeßlingi, Sea Plantain. Stalk naked. Spike oval, hairy. Leaves linear, a little indented.

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dented. Floral leaves navicular, membranous.

7. *Uniflora. Grass-leaved Plantain.* Stalk naked, slender, short, bearing a single flower, with very long stamina. Leaves narrow, taper. July. Perennial. On bogs, &c. Hounslow-heath.

CENTUNCULUS. Calyx quadrifid, spreading, permanent; segments sharp-pointed, longer than the corolla. Corolla monopetalous, regular, quadrifid, spreading, below the germen; tube inflated. Capsule globose, unilocular, opening transversely. Seeds many, small.

1. *Minimus. Bastard Pimpernel.* Stems, three or four, four or five inches long, procumbent. Leaves roundish, alternate. Flowers in the axæ of the leaves, white, minute. On moist sandy ground, near the paper-mill on Hounslow-heath, &c. June. Annual.

**** *Corolla of four petals, regular, above the germen.*

CORNUS. Calyx double: involucre of four leaves, coloured, deciduous: perianthium minute, of one leaf, with four teeth, above the germen. Corolla acute, plane, less than the involucre. Stamina longer than the corolla. Fruit, *drupa*, containing an oblong umbilicated nut, in which are two cells with a kernel in each.

1. *Banguinea. Female Cornel, Dog-berry, Gatter-tree, or Prickwood.* A shrub about five feet

feet high. Trunk firm, red-brown. Branches straight. Leaves conjugate, oval, pointed, with the edges intire. Flowers small, white, in naked clusters. Fruit oblong, size of a pea, black, very bitter. June. In hedges frequent.

2. *Succica. Dwarf Honey-suckle.* An herb. Stem erect, six inches high; two branches on the top, with a white flower between, succeeded by a red fruit, like a mulberry. Leaves sessile, opposite, smooth, intire, oval, pointed, with five longitudinal ribs. June. Perennial. On our northern hills.

EUONYMUS. Calyx with four segments, spreading. Corolla regular, of four petals. Capsule quadrangular, quadrilocular, quadrivalve, coloured. Seed covered by an exterior coat.

1. *Europeus. Spindle Tree.* A shrub six or eight feet high. Branches, by ridges in the bark, appear square. Leaves conjugate, elliptical, pointed, obtusely serrated. Flowers greenish white, in bunches on conjugate pedicles. Fruit angular, purplish. May, June. In woods and hedges.

***** *Corolla* o.

ALCHEMILLA. Calyx, of one leaf, tubular, permanent, with eight segments, alternately equal, plane. Stamina small, in the rim of the calyx. Seed one, elliptical, compressed.

1. *Vulgaris. Ladies Mantle.* Stems drooping, round, thick, a foot or more in length.

AINYD II D 4

Leaves

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Leaves roundish with eight or ten points, folded like a fan, pale, green, hairy, on long foot-stalks. Flowers, in tufts, yellowish green. June—August. In meadows, &c. frequent.

2. *Alpina. Cinquefoil Ladies Manile.* Stems about five inches long, drooping. Leaves, on long foot-stalks, five-fingered, serrated, pale green above, silver white beneath. Flowers greenish. July. Perennial. On the northern hills.

GENTIANA. Calyx and corolla with four segments. Stigmata two, oval, without styles. Capsule oblong, unilocular, bivalve. Seeds numerous, small. Receptacles two, longitudinal.

1. *Campestris. Vernal Dwarf Gentian.* Stem erect, about two or three inches high, not branched, terminated by a single blue flower. Radical leaves lance-shaped, spread upon the ground; on the stem not more than one or two pair. Corolla cup-fashioned, woolly within. May, June. Annual. In mountainous pastures.

2. *Filiformis. Marsh Centaury.* Stem forked, slender. Leaves narrow, pointed. Flowers yellow, on long pedicles, funnel-shaped, not bearded within. July. Annual. In marshy ground.

II. DIGYNIA.

II. DIGYNIA

Pistilla 2.

APHANES. Calyx, of one leaf, tubular, permanent, with eight segments alternately regular. Corolla o. Stamina small, on the rim of the calyx. Seeds two, oval, pointed, compressed.

1. *Arvensis. Parsley-piert.* Stems three or four inches long, procumbent, covered with leaves, which are deeply indented. Flowers small, greenish white, in clusters among the leaves, along the branches. May. Annual. In corn-fields, &c. frequent.

BUFONIA. Calyx, of four leaves, erect, permanent. Corolla of four petals, oval, notched, erect, equal, shorter than the calyx. Stamina not invariably four; sometimes two, very rarely three. Capsule oval, bilocular, bivalve. Seeds two.

1. *Tenuifolia. Bastard Chickweed.* Stalk round, slender, erect, jointed, about eight inches high. Branches alternate. Leaves two at each joint, narrow, pointed. Flowers in the axils of the leaves, small, white. May. Perennial. On the coast near Boston in Lincolnshire. On Hounslow-heath.

CUSCUTA. Calyx of one leaf, quadrifid. Corolla monopetalous, quadrifid. Capsule bilocular, opening transversely. Seeds two.

1. *Europæa.*

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1. *Europæa. Dodder.* Stem naked, reddish, twisting round any other plant, whence, having no root of its own, it receives nourishment. Flowers in clusters on the stalk, white, sessile. July. Annual. In corn-fields, &c. *Huds. Fl. Angl. p. 89.*

III. TETRAGYNIA.

Pistilla 4.

ILEX. Calyx, of one leaf, small, with four teeth, permanent. Corolla monopetalous, with four roundish, concave, segments. Style 0. Stigmata four. Fruit a berry, with four seeds.

1. *Aquifolium. Holly-tree.* Leaves oval, prickly. Flowers small, whitish. Berries red when ripe. In hedges.

POTAMOGETON. Calyx 0. Corolla of four petals, obtuse, concave, erect, deciduous. Stamina very short. Styles 0; stigmata obtuse. Seeds four, roundish, pointed, angulated.

1. *Natans. Broad-leaved Pond-weed.* Leaves single, oblong, oval, on long foot-stalks, swimming, brown-green. Stem long, round, jointed. Flowers small, yellowish, on spikes two inches long. August. Perennial. In rivers and ponds.

2. *Perfoliatum. Perfoliated Pond-weed.* Leaves alternate, heart-shaped, surrounding the stem, glossy and ribbed longitudinally.

nally. Stalk two or three feet long. Spike short, on a thick pedicle. Flowers small, yellowish. June, July. Perennial. In rivers and ponds.

3. *Lucens*. *Long-leaved Pond-weed*. Leaves lance-shaped, pellucid, glossy, ending in a petiolus. June. Perennial. In rivers and ponds.

4. *Crispum*. *Great Water Caltrop*. Leaves alternate, lance-shaped, waved, serrated. Stalk very long, jointed, branched, flat. Flowers white or reddish, in bunches, on foot-stalks. May, June. Perennial. In rivers, ponds, ditches, frequent.

5. *Serratum*. *Less Water Caltrop*. Leaves lance-shaped, opposite, waved a little, serrated, glossy. Stem round. Flowers green-yellow, on foot-stalks. June. Perennial. In slow rivers.

6. *Compressum*. *Small branched Pond-weed*. Leaves long, narrow, ribbed, obtuse. Stalk long, compressed, branched. Flowers small, greenish, on short spikes. In rivers. June, July. Perennial.

7. *Gramineum*. *Grass-leaved Pond-weed*. Leaves lance-shaped, alternate, sessile. Stalk crowded with branches and leaves. Annual. In ditches.

8. *Pectinatum*. *Fennel-leaved Pond-weed*. Leaves very narrow, convex on both sides, parallel, and near each other, two inches long. Branches numerous, long, naked, bearing remote bunches of flowers. June,

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Juncea. Perennial. In rivers. Serpentine river, Hyde Park.

9. **Maritima.** Sea Pond-weed. Leaves linear, alternate, distinct, the base sheathing the stem. August. Annual. In ditches on the coast.

10. **Pusillum.** Small Grass-leaved Pond-weed. Leaves linear, opposite, alternate, distinct, spreading at the base. Stalk round. June-August. Perennial. In ponds and ditches.

RUPPIA. Calyx 6. Corolla 6. Seeds four or five on slender foot-stalks. Antheræ sessile. Styles one.

1. **Maritima.** Sea-grass. Leaves long, narrow, pointed, alternate. Stalk single, about eight inches high. August. Annual. In salt-water ditches.

SAGINA. Calyx of four leaves, oval, concave spreading, permanent. Corolla of four petals, regular, obtuse, shorter than the calyx. Capsule quadrilocular, quadrivalve. Seeds many.

1. **Procumbens.** Pearl-wort, Chickweed, Break-stone, or Moss-like Pink. Stem and branches small, spreading on the ground like moss. Leaves small, narrow. Flowers small, green-white. June. Annual. On walls, and barren sandy ground, frequent.

2. **Erecta.** Leaf Stichwort. Stem erect, bearing a single white flower on the top. Leaves opposite,

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opposite, glossy, sessile, oval, pointed.
April, May. Annual. In pastures frequent.

LINUM. Calyx of five leaves, small, erect. Petals five, regular, below the germen. Capsule five-locular, ten-valve. Seeds single.

1. Radiola. *Least Rupture-wort, or All-seed.*
Stalks numerous, forked, two or three inches long, spreading in a tuft on the ground. Leaves opposite, sessile. Flowers minute, white. August. Annual. In waste ground.

CLASS

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C L A S S V.

PENTANDRIA.

Stamina 5.

I. MONOGYNIA.

Pistillum 1.

- * *Flowers regular, of one petal, below the germen, with four naked seeds, and rough leaves.*

MYOSOTIS. Corolla tubular, the rim expanded, with five segments, notched; tube closed by five small valves. Stamina, in the neck of the tube, very short.

1. Scorpioides. *Mouse-ear Scorpion-grass.* Stem round, hairy, terminated by a long loose curled spike of blue flowers. Leaves hairy, soft, oblong, obtuse, alternate, sessile. April---August. Perennial. Common in moist and dry situations.

LITHOSPERMUM. Corolla funnel-shaped, about the length of the calyx, with five slight segments, obtuse, erect; tube cylindrical and open at the top. Stamina very short. Seeds naked.

1. Officinalis. *Common Gromwell.* Stem about two feet high, hard, rough, branched. Leaves

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Leaves launce-shaped, alternate, sessile, rough. Flowers small, white, ranged along the branches among the leaves. Seeds smooth. May, June. Perennial. In barren ground.

2. *Arvense. Bastard Alkanet.* Stem about one foot high, thick, rough, branched at the top. Leaves launce-shaped, alternate. Flowers white, on short foot-stalks among the leaves. Root reddish. Seeds rough. May, June. Annual. In corn-fields frequent.

3. *Purpureo-cœruleum. Creeping Gromwell.* Stems rough, creeping. Leaves launce-shaped, alternate. Corolla much longer than the calyx, purple. Seeds smooth. The flower-bearing stems are erect, and the flowers terminal. June. Perennial. On hills.

on the town walls at Cardigan L.

ANCHUSA. Corolla funnel-shaped, with five slight segments; tube, the length of the calyx, closed by five valves. Stamina very short. Seeds oblong, notched at the base.

1. *Sempervirens. Ever-green Alkanet, or Bugloss.* Stem round, thick, hairy, branched, two or three feet high. Leaves oval, pointed, rough. Flowers numerous, blue, in round bunches, on foot-stalks with two leaves. May, June. Perennial. Among rubbish, &c.

CYNOGLOSSUM. Corolla funnel-shaped, length of the calyx; tube short, and

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and closed by five valves; rim with five light segments. Stamina very short. Style permanent. Seeds four, fixed to the style.

1. Officinale. *Hound's Tongue*. Stem erect, branched, thick, about two feet high. Leaves sessile, tongue-shaped, pointed, downy, ribbed. Flowers purplish, on short foot-stalks in naked spikes. June. Annual. Among rubbish, road-sides, &c.

PULMONARIA. Calyx tubular, pentangular. Corolla funnel-shaped; rim quinquefid; segments obtuse, somewhat erect; tube pervious, and somewhat globular at the end.

1. Officinalis. *Broad-leaved Lungwort*, or *Bugloss Cowslip*. Calyx the length of the tube of the corolla. Stem angular, hairy, about a foot high. Radical leaves, on foot-stalks, broad, oval, hairy; the rest long, sessile. Flowers white and purple or blue, in round clusters. May. Perennial. Hampshire, in woods.

2. Maritima. *Sea Bugloss*. Calyx half the length of the tube of the corolla. Stem branched, procumbent, about two feet long. Leaves oval, on foot-stalks. Flowers, in the axæ of the leaves, purple. July. Perennial. In the sand on the coast.

SYMPHYTUM. Calyx pentangular. Corolla summer-shaped but long, with five

five segments in the rim, reflexed; tube very short, with five connivent rays in the opening, alternate with the stamina.

1. *Officinale. Comfrey.* Stem rough, round, green, branched, about two feet high. Radical leaves very large and rough; those on the stalk decurrent, alternate. Flowers in loose spikes, yellowish white, or purple. On the banks of rivers. Perennial. July.

BORAGO. Corolla the length of the calyx, with five segments horizontally expanded; tube short, the opening crowned by five obtuse, notched radii. Seeds roundish, wrinkled.

1. *Officinalis. Borage.* Stem thick, hairy, round, branched. Leaves oval, broad, alternate. Calyces spreading. Flowers numerous, blue, single, on longish weak foot-stalks, in loose naked spikes on the tops of the branches. June—August. Perennial. Among rubbish, high-roads, &c.

ASPERUGO. Calyx, whilst immature, tubular and quinque-dentate; when ripe, compressed, large, bivalve. Corolla funnel-shaped, small; tube closed by five prominent valves.

1. *Procumbens. German Mad-wort, or small Wild Borage.* Stem angular, procumbent, branched, rough. Leaves on foot-stalks, obtuse, oval. Flowers

single, purple. April, May. Annual.
In roads, &c.

LYCOPSIS. Corolla funnel-shaped; the tube curved, and covered by five valves. Calyx becomes large and inflated.

1. *Arvensis.* *Small Wild Bugloss.* Stem very rough and harsh, branched. Leaves alternate, oval, harsh, waved, and irregularly cut on the edges. Flowers single, blue. Calyx hairy, divided to the base. June—September. Corn-fields, roads, &c.

ECHIUM. Segments of the calyx long and pointed. Corolla campanulate, with a very short tube; the two upper segments longest, the least segment acute and reflex; tube open, and wide at the top. Seeds obliquely pointed.

1. *Italicum.* *Wall Viper's Bugloss.* Stem erect, firm, about two feet high, branched, hairy. Leaves lance-shaped, sessile, numerous. Flowers in rough spikes; corollæ not quite regular, blue, and scarce exceeding the calyx; stamina very long. July. Perennial. On sandy soil.

2. *Vulgate.* *Viper's Bugloss.* Stem erect, single, about eighteen inches high, spotted with red, hairy, branched. Leaves numerous, alternate, lance-shaped, covered with bulbous hairs. Flowers first red, then blue, sessile, on unilateral curved spikes. July. Perennial. Corn-fields, &c.

** Corolla

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** Corolla regular, of one petal below the germen.
Seeds in a capsule.

2. **PRIMULA.** Involucrum minute of many leaves. Perianthium of one leaf, tubular, erect, with five sharp teeth, pentangular. Tube of the corolla cylindrical, pervious. Segments five, obtuse, notched. Capsule cylindrical, unilocular, opening with ten teeth at the top. Seeds many.

1. **Vulgaris.** *Primula*. Stalk naked, supporting a single pale-yellow flower. Leaves wrinkled, indented. April, May. Perennial.

2. **Vetis.** *Cowslips.* Stalk naked, supporting several yellow sweet-smelling flowers. Leaves wrinkled, indented. April, May. Perennial. In meadows.

Great Cowslips. Larger, paler, and without smell.

3. **Farinosa.** *Bird's Eye.* Leaves smooth, notched. Flowers like cowslips, but generally more numerous, and red. May. Perennial. In the northern counties.

MENYANTHES. Corolla funnel-shaped, hairy, with five deep incisions; segments a little reflex; tube short, and widest at the top. Stigma bifid. Capsule unilocular.

1. **Nymphoides.** *Fringed Water Lilly.* Stem creeping, and striking root in the mud. Leaves large, heart-shaped, single. Flowers large, yellow, on long foot-

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stalks, and fringed. June, July. In rivers, &c. Perennial.

2. Trifolia. *Buck-bean*, or *Marsh Trefoil*. Stem erect, about a foot high. Radical leaves oval, three on each foot-stalk. Flowers terminal, white, in clusters. June, July. Grows in fens.

HOTTONIA. Calyx with five deep incisions, the segments narrow, and a little erect. Corolla cup-fashioned, the tube inflated, segments five, obliquely cut and notched in the rim. Stamina short, on the top of the tube, and opposite the segments. Capsule globose, pointed, unilocular, on the calyx. Seeds many.

1. Palustris. *Water Violet*. Stalk long, creeping, and then erect. Leaves expanded on the water, pinnated, the pinnæ long, linear. Flowers white, on long foot-stalks, disposed in whirls, gradually less. July, August. Perennial. In ditches, &c. frequent.

LYSIMACHIA. Calyx deeply cut, segments erect, acute. Corolla without tube, expanded; the segments long, oval. Capsule unilocular, with ten valves. Seeds many, angular.

1. Vulgaris. *Yellow Willow-herb*, or *Loosestrife*. Stem four or five feet high, branched, striated, hairy. Leaves pale, broad, lance-shaped, three or four at each joint. Flowers yellow, several on each foot-

foot-stalk, in bunches, terminating the stem and branches. June, July. Perennial. On the banks of rivers, &c.

2. *Thyrisflora*. *Tufted Willow Herb*. Stem erect, not branched, striated, about a foot or more high. Leaves two at each joint, pale, and narrower than the last. Flowers yellow, on long foot-stalks, lateral, from the root of the leaves, in roundish compact clusters, or tufts. June. Perennial. On the banks of rivers, &c. but rare.

3. *Nemorum*. *Yellow Pimpernel of the Woods*. Flowers single, yellow, on lateral foot-stalks, from the axæ of the leaves. Stem procumbent, round, red. Leaves oval, pointed, on short foot-stalks. May, June. Perennial. In moist woods, &c.

4. *Nummularia*. *Money-wort*. Flowers from the axæ of the leaves, single, yellow; incisions of the petal very deep. Stem creeping, quadrangular. Leaves, conjugate, in short pedicles, roundish. June. Perennial. In moist meadows, &c.

5. *Tenella*. *Purple Money-wort*. Flowers single, red. Differs from the last chiefly in the foot-stalks being longer than the leaves, which they support. July, August. Perennial. On bogs, &c.

ANAGALLIS. Corolla regular, expanded, without tube. Capsule gl. bosc, unilocular, opening transversely. Seeds several, angular. Receptacle globose, large.

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1. *Arvensis*. *Male* or *Female Pimpernel*. Stem procumbent, angular. Leaves sessile, oval, pointed, in pairs. Flowers red, or blue, single, on conjugate foot-stalks, from the axils of the leaves. May—August. Annual. In corn-fields. The female or blue pimpernel is a larger plant, and, I think, a distinct species.

CONVOLVULUS. Calyx small, irregular. Corolla bell-shaped, plaited, large, expanded, with five or ten notches in the rim. Stigmata two. Capsule bilobular, with two seeds in each.

1. *Arvensis*. *Small*, or *Gravel Bind-weed*. Stems numerous, weak, twisting, generally spreading on the ground. Leaves arrow-shaped, with three acute angles. Flowers reddish white, on foot-stalks, single. June, July. Perennial. Fields, high-roads, &c. common.

2. *Sepium*. *Great Bind-weed*. Stems twisting, eight or ten feet long. Leaves heart-shaped, the two posterior angles being truncated. Flowers white, single, on long triangular foot-stalks. July, August. In hedges.

3. *Soldanella*. *Sea Bind-weed*. Stem prostrate. Leaves reniform. Flowers single, red. July. Perennial. On the coast.

POLEMONIUM. Calyx with deep incisions. Corolla bell-shaped, but shallow, with five short, broad segments; the tube closed by five valves. Stamina inserted

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inserted in the valves; anthers incumbent. Stigma trifid. Capsule ovato-conic, trivalve, trilocular. Seeds many.

1. *Cœruleum*. *Greek Valerian*, or *Jacob's Ladder*.

Stem firm, erect, about two feet high, branched. Leaves pinnated; pinnae eleven pair or more, with an odd one at the end. Flowers blue, in dense spikes, terminal.

DATURA. Calyx tubular, pentangular, deciduous. Corolla funnel-shaped, almost intire, five-folded, pentangular. Capsule spinous, bilocular, quadrivalve. Seeds numerous.

1. *Stramonium*. *Thorn-apple*. Stem forked,

spreading wide. Leaves, on long footstalks, imboth, oval, large, indented. Flowers single, large, white, in the divisions of the branches. Fruit erect. July. Annual. Among rubbish, &c. about London, frequent.

ATROPA. Corolla campanulate, inflated; the opening at the top narrow, spreading. Stamina curved, diverging. Berry globose, bilocular. Seeds many.

1. *Belladonna*. *Deadly Nightshade*, or *Dwale*.

Stem erect, forked, branched, three or four feet high. Leaves oval, intire, large, hairy, soft, pointed. Flowers dead purple, numerous, on pedicles from the ax of the leaves, single. Fruit, when ripe, a large black glossy berry. In woods, hedges, &c. June, July. Perennial.

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SOLANUM. Corolla wheel-shaped; tube very short; limb large, plaited, semiquinquefid. Stamina minute; antheræ contingent, bursting at two pores in the apex. Berry bilocular.

1. *Dulcamara.* *Woody Night-shade.* Stem woody, slender, weak, climbing, six feet or more in length, not prickly. Upper leaves, on long foot-stalks, shaped like a halbert. Flowers, in loose bunches, purple, with two greenish spots at the base of each segment of the corolla; stamina yellow, forming a cone. Berry red. June, July. Perennial. In hedges, frequent.

2. *Nigrum.* *Common Night-shade.* Stem herbaceous, branched, about a foot high. Leaves single, on long foot-stalks, alternate, dentato-angulated. Flowers white, on branched pedicles, drooping. Berries black. June, July. Annual. Among rubbish, &c.

VINCA. Corolla cup-fashioned, twisted; tube cylindrical below; limb horizontal, with five segments, obliquely truncated. Stamina very short, and bent. Style on a double germen. Stigmata two, one above the other. Pericarpium, two folliculi, erect, cylindrical, univalve.

1. *Minor Periwinkle.* Stem woody, creeping, slender, crooked. Leaves long, oval, intire, pointed, opposite, glossy. Flowers single, on long curved pedicles from the axæ of the leaves, large, blue. May.

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May. Perennial. In woods, hedges, &c. near Hampstead.

2. Major. *Great Periwinkle*. Stem woody, erect. Leaves broader and sharper pointed. Pedicles of the flowers straight, and calyx as long as the tube: otherwise like the former. May. Perennial. In woods and hedges frequent.

*** Corolla regular, of one petal, above the germen.

CAMPANULA. Corolla bell-shaped, closed at the bottom by five valves, bearing the stamina. Stigma trifid. Capsule below the flower, and opening by lateral pores. Seeds numerous, small.

1. Uniflora. *Mountain Bell-flower*. Flower single. Calyx as long as the corolla. Stem single, erect. July, August. Perennial. In Wales, Westmoreland.

2. Rotundifolia. *Round-leaved Bell-flower*. Stem slender, scarce a foot high. Radical leaves roundish, on long pedicles; those on the stem long and narrow. Flowers large, terminal, on long foot-stalks, blue. August. Perennial. On waste ground and barren pastures.

3. Patula. *Field Bell-flower*. Stem branched. Leaves stiff, lance-shaped. Panicle diffuse. A livid denticle on each side of the segments of the calyx. July, August. In woods and hedges. Perennial.

4. Rapun-

4. *Rapunculus*. *Rampian*. Stem two or three feet high; angular, hairy, with many branches. Radical leaves tongue-shaped; obtuse, hairy; the rest narrow, pointed, serrated. Flowers terminal, on short foot-stalks, blue. August. Perennial. In fields, &c. but rare. Near Croydon in Surrey.

5. *Latifolia*. *Giant Throat-wort*. Stem single, round. Leaves broad, rough, lance-shaped. Flowers single, on foot-stalks. Fruit drooping. July, August. Perennial. In hedges, &c. In the mountainous parts of the north.

6. *Trachelium*. *Great Throat-wort*, or *Canterbury-bells*. Stem purplish, square, hairy, about two feet high, bending. Leaves, like those of the common nettle, rough, on foot-stalks. Flowers blue, generally three on each branch of a trifid pedicel, from the axæ of the leaves. Calyx fringed. July, August. Perennial. Woods and hedges.

7. *Glomerata*. *Little Throat-wort*. Stem erect, angular, simple or but little branched, and somewhat rough. Leaves rough; those at the bottom on foot-stalks. Flowers sessile, conglomerate, blue, reddish, or white, resting upon short, broad leaves. July. Perennial. On hills, especially chalk.

8. *Hybrida*. *Less Venus Looking-glass*, or *Podded Corn-violet*. Stem erect, divided near the root, angular. Leaves sessile, oblong, waved, crenated. Flowers purple, expanded, from the axæ of the leaves, on pedicel.

pedicles; calyx aggregate, and longer than the corolla. Capsule a pod, prismatic. Corolla almost pentapetalous. June, July. Annual. In corn-fields, but rare.

9. *Hederacea* *flow-leafed Bell-flower*. Stem four or five inches long, tender, procumbent, reddish. Leaves heart-shaped, with five lobes, smooth, on long foot-stalks. Flowers blue, on long slender pedicles. May - August. Perennial. In moist shady places.

PHYTEUMA. Corolla stellated, expanded, monopetalous, with five long, narrow, acute, recurved segments. Style the length of the corolla, curved. Stigma trifid. Capsule roundish, trilocular. Seeds many, small.

1. *Orbicularis*. *Horned Rambsons*. Stem erect, simple, about a foot high, terminated by a round spike of purple flowers. Radical leaves heart-shaped, on long foot-stalks, the rest long, sessile, serrated. July. Perennial. On downs.

Corolla irregular, of one petal.

LONIGERA. Calyx small. Corolla above the germen, tubular, quinquefid; segments revolute; tube gibbous. Fruit a berry with several seeds, bilocular.

1. *Periclymenum* *Honeysuckle, or Woodbine*. A shrub; branches long, climbing. Leaves distinct, oval, smooth, obtuse. Flowers sessile,

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sessile, on oval imbricated heads, terminal. May—July. In hedges.

1. *Xylosteum. Upright Alpine Honeyfuckle.* A low shrub, erect, bushy at the top. Leaves oval, pointed, hairy, intire. Flowers white, two on each pedicle. Fruit two oblong red berries, which as they ripen run into one oval, striated berry. July. In the fissures of rocks. Under the Roman wall, on the west side of Shewing-Sheels, Northumb. Wallis, p. 149.

VERBASCUM. Corolla below the germen, with a very short tube, and five obtuse expanded segments. Stamina inclining, and downy at the base. Capsule roundish, bilocular, bivalve.

1. *Thapsus. Great White Mullein.* Stem single and simple, erect, covered with leaves, about six feet high. Leaves large, broad, white, woolly on both sides, sessile, decurrent. Flowers terminal, in a long spike, sessile, yellow. July. Biennial. In barren ground.
2. *Lychnitis. Hoary Mullein.* Stem two or three feet high, branched. Leaves oblong, pointed, wrinkled, meally beneath, and notched round the edges. Flowers yellow, or white, on terminal and lateral spikes. July. Biennial. Barren ground.
3. *Nigrum. Black Mullein.* Stem purplish, angular, about five feet high. Leaves oblong, serrated, dark green, &c. wrinkled

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wrinkled on the upper side, on foot-stalks. Flowers yellow, with purplish antheræ; spike loose, terminal. July. Perennial. High roads, &c.

4. *Blattaria*. *Yellow Mosh Mullin*. Stem simple. Leaves oblong, serrato-dentated, smooth, glossy, embracing the stem. Flowers, in thin spikes, on separate pedicles, yellow, large. June. Annual. On gravelly soils.

HYOSCYAMUS. Calyx tubular, bellying at the bottom, quinquifid, permanent. Corolla below the germen, semiquinquifid, segments obtuse, one broader than the rest. Stamina inclining. Capsule bilocular, with a line on each side, and a cover on the top. Seeds numerous.

1. *Niger*. *Henbane*. Stem firm, about two feet high, branched. Leaves very large, indented, surrounding the stem. Flowers sessile, large, brown and purple. June. Annual. High-roads, &c.

* *Pentapetalous, regular, above the germen.*

RIBES. Calyx of one leaf. Corolla minute, erect, on the edge of the calyx. Stamina inserted in the calyx. Style bifid. Berry with many seeds.

1. *Rubrum*. *Currents*. A shrub about four feet high. Leaves serrated. Flowers green-white, in pendulous bunches. May. In woods, &c. in the north; also in gardens.

2. *Alpinum*.

2. *Alpinum*. *Mountain Currant*. A small shrub. Flowers in erect bunches, with floral leaves longer than the flowers. May. In hedges in Yorkshire, &c.

3. *Nigrum*. *Black Currants*. Flowers oblong; bunches hairy. Leaves have a strong smell. May. In moist woods and banks of rivers; also in gardens.

HEDERA. Style simple. Berry with five seeds, encompassed by the calyx.

1. *Helix*. *Joy*. A slender climbing shrub. Leaves lobed, glossy. Flowers in bunches. October.

* *Corolla* 0.

ILLECEBRUM. Calyx, of five leaves, cartilaginous, coloured, below the germen. Stigma simple. Capsule quinquevalve. Seed one.

1. *Verticillatum*. *Verticillate Knot-grass*, or *creeping Milkwort*. Stalks several, jointed, spreading on the ground. Leaves short, oval, in pairs. Flowers, small, white, in whirls. July. Perennial. In wet pastures, &c. in Cornwall, &c.

GLAUX. Calyx of one leaf. Capsule unilocular, quinquevalve. Seeds five.

1. *Maritima*. *Sea Milkwort*, or *Black Saltwort*. Stalks numerous, procumbent, jointed. Leaves sessile, in pairs. Flowers purple, in the axæ of the leaves. July. Perennial. On the sea-shore.

THESIUM.

THESIU. Calyx* of one leaf, above the germen. Stamina inserted in the calyx. Seed one, in the bottom of the calyx.

1. **Linophyllon**. *Bastard Toad-flax*. Stalks slender, striated, branched. Leaves long, narrow. Flowers white, small, on pedicels from the axils of the upper leaves. June, July. Perennial. On chalk hills.

RHAMNUS. Calyx tubular, quinquefid, coloured on the inside, with a minute scale at the base of each segment. Berry.

1. **Frangula**. *Black-berry bearing Alder*. A tall shrub, without spines. Inner bark yellow. Leaves roundish, pointed, entire. Flowers hermaphrodite. April, May. In woods and hedges.

II. DIGYNIA.

Pistilla 2.

POLYGONUM. Calyx 0. Corolla 5-partite, resembling a calyx. Stamina and pistilla very short. Seed one, angular.

1. **Amphibium**. *Perennial Arsmart*. Stem slender, branched. Leaves long, narrow, with parallel nerves, slightly serrated. Flowers reddish, in dense spikes; stamina longer than the corolla. June, July. In fens and ditches frequent.

HER.

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* *Corolla* o.

HERNIARIA. Calyx with five segments, spreading, coloured on the inside. Beside the five proper minute stamina, there are five sterile filaments. Style very short. Stigmata two. Capsule small. Seed one.

1. *Glabra.* *Smooth Rupture-wort.* Stems numerous, slender, branched, four or five inches long, spreading on the ground. Leaves in pairs, very small and pointed. Flowers minute, yellowish, in clusters along the stalks. July. Annual. Corn-wall.

2. *Hirsuta.* *Rough Rupture-wort.* Leaves hairy. June, July. Annual. In meadows, but rare.

3. *Lenticulata.* *Sea Rupture-wort.* Stems numerous, slender, branched, spreading on the ground. Leaves roundish, small. Flowers small, greenish white, in bunches, terminal. On the sea-coast.

CHENOPODIUM. Calyx of five leaves, pentangular. Style short, divided. Stigmata obtuse. Pericarpium o. Seed one, lenticular.

* *Leaves angular.*

1. *Bonus Henricus.* *English Mercury,* or *Allgood.* Stalks near two feet high. Leaves triangular, arrow-shaped, intire, oily, on long foot-stalks. Flowers greenish white, in spikes, terminal. August. Perennial. Among rubbish, frequent.

2. *Urbicum.* *Upright Blite.* Stem erect. Leaves, on long foot-stalks, somewhat triangular,

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lar, oblong, obtuse, slightly indented. Flowers greenish, in long, naked, slender, dense spikes, or bunches, branched, erect, from the axæ of the leaves. August, September. Annual. Among rubbish, &c.

3. Rubrum. *Sharp-leaved Goose-foot.* Stem erect. Leaves somewhat triangular, thick, glossy, sinuato-dentated towards the point. Flowers in reddish bunches, lateral, composite, erect, leafy. August. Annual. On dunghills, rubbish, &c.

4. Murale. *Goose-foot, or Sowbane.* Stem erect, much branched. Leaves triangular, irregularly indented. Flowers in reddish bunches, lateral, naked, from the axæ of the leaves. August. Annual. In gardens, and among rubbish, &c.

5. Serotinum. *Late-flowering Blite.* Leaves triangular, wrinkled, smooth, uniform, with a deep sinus on each side, somewhat resembling those of the fig-tree. Flowers in bunches, terminal. August, September. Annual. On dunghills, rubbish, &c. frequent.

6. Album. *Common Orach.* Stem erect, about three feet high, branched. Leaves, on long foot-stalks, rhomboideo-triangular, irregularly indented towards the point, and mealy on the under side. Flowers in terminal bunches composed of alternate, sessile, thick spikes. Seed black, with a peculiar integument, distinct from the calyx.

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7. *Viride. Green Blite.* Stem erect, green, purplish at the angles. Leaves rhomboidal, sinuated, dentated; those on the branches lance-shaped, intire. Flowers in long, slender, naked, divided spikes. Annual. In cultivated ground frequent.

8. *Hybridum. Maple-leaved Blite.* Leaves somewhat heart-shaped, with a few large angulated indentures, and a long point. Flowers in long, naked, branched, bunches, lateral and terminal. August. Annual. Among rubbish, dunghills, &c. frequent.

9. *Glaucum. Oak-leaved Blite.* Leaves ovato-oblong, cut round the edges in a waved line, downy beneath. Flowers in simple, naked, roundish bunches. Stem procumbent. August. Annual. On waste ground frequent.

** *Leaves intire.*

10. *Vulvaria. Fætid Orach.* Stem branched, diffuse, procumbent. Leaves not large, rhomboidal, obtuse, meally. Flowers in small roundish bunches, from the axæ of the leaves. August. Annual. In waste ground frequent.

11. *Polyspermum. Round-leaved Blite, or Allseed.* Stem decumbent. Leaves oval. Flowers very numerous, small, in forked bunches. Annual. Frequent.

12. *Maritimum. Sea Blite, or White Glasswort.* Leaves narrow, taper, plane above, convex beneath. A small whitish plant. Seeds

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Seeds glossy. August. Annual. On the sea-coast frequent.

BETA. Calyx of five obtuse concave leaves. Stamina the length of the calyx. Styles very short, erect. Capsule in the bottom of the calyx, unilocular. Seed one, reniform.

1. *Maritima.* *Sea Beet.* Stem decumbent. Leaves large, triangular, vertical, or oblique, on long foot-stalks. Flowers terminal and lateral. August. Biennial. On the coast frequent.

2. *Vulgaris.* *Common Beet.* Stem erect. Leaves horizontal.

SALSOLA. Calyx of five oval leaves. Stamina very short, in the leaves of the calyx. Stigmata curved. Capsule unilocular. Seed one, large, spiral.

1. *Kali.* *Prickly Glasswort.* Stem herbaceous, decumbent, rough. Leaves thick, narrow, taper, ending in a spine. Flowers greenish, in the axæ of the leaves; calyces with a leafy margin. July, August. Annual. On the coast frequent.

ULMUS. Calyx like a top, wrinkled, with five segments, coloured on the inside. Stamina double the length of the calyx; styles shorter, reflexed. Fruit a dry berry.

1. *Campestris.* *Common Elm.* Leaves rough, oval, pointed, doubly serrated, unequal at the base. Bark of the trunk crack-

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ed and wrinkled. Fruit membranous.
April. In hedges common.

* *Corolla of one petal, regular, below the germen.*

SWERTIA. Calyx with five segments.

Corolla with five segments, spreading, without tube. Two nectariferous pores at the base of each segment. Two stigmata without styles. Capsules three, unilocular, bivalve. Seeds numerous, small.

1. *Perennis. Marsh Gentian.* Radical leaves oval. August. In Wales.

GENTIANA. Calyx and corolla with five segments. Stigmata two, oval, without styles. Capsule oblong, cylindrical, pointed, unilocular, bivalve. Seeds numerous, small. Receptacula two, longitudinal.

1. *Pneumonanthe. Calathian Violet.* Stem erect, with few branches, near two feet high. Leaves narrow, opposite. Flowers blue, campanulate, erect, terminal, few, opposite, on short pedicles. August. Perennial. In moist meadows.

2. *Centaurium. Less Centory.* Stem single, erect, divaricated, about a foot high. Leaves opposite, sessile, narrow, with three ribs. Flowers pale red, funnel-shaped, terminal, in clusters on the upper branches, which form a kind of umbel. June. Annual. In dry pastures.

3. *Amarella.*

3. *Amarella. Autumnal Gentian, or Fellwort.*
Stems numerous, branched, about a foot high. Leaves opposite, sessile. Flowers cup-fashioned, bearded within, blue, terminal. July, August. Annual. In dry pastures.

* *Flowers with five petals, regular, in umbels, with general and partial involucre.*

ERYNGIUM. Flowers in roundish heads. Receptacle conic, with paleæ between the sessile floscules. Involucrum of the receptacle of many leaves, erect, acute, exceeding the floscules. Proper perianthium of five leaves, erect, acute. Petals reflex. Stamina and styles longer than the corolla.

1. *Maritimum. Sea Holly, or Eryngo.* Root very long. Radical leaves roundish, folded, deeply indented, spinous, on long footstalks; those on the stem and branches sessile. Stem much branched. Flower-heads on pedicles. Flowers small, whitish. July, August. Perennial. On the coast.
2. *Campestre. Common Eryngo.* Root shorter than the last, and leaves narrower, pinnated, tripartite. Both plants are of a bluish green. July, August. In pastures near the sea.

HYDROCOTYLE. Umbel simple. Involucrum of four leaves. Petals oval, acute, intire, spreading. Seeds two, compressed.

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1. *Vulgaris*. *Marsh Pennywort*, or *White-root*.
Stem creeping, jointed. Leaves single,
on long foot-stalks, fixed on the center,
round, with eight nerves and eight scal-
lops. Umbels of five flowers, which
are small, and reddish white. May. Pe-
rennial. In wet pastures.

SANICULA. General umbel of about
four radii; the partial of many, closed,
so as to form a kind of knob. General
involucrum but half round. Floscules
of the disk abortive. Stamina twice the
length of the corolla. Fruit rough.
Seeds two.

1. *Europæa*. *Sanicle*. Stem erect, naked. Ra-
dical leaves numerous, on long foot-
stalks, trilobed, indented; the side-lobes
divided. Floscules all sessile.

BUPLEURUM. General umbel with
less than ten radii. Partial involucrum of
five leaves, large. Floscules all fertile.
Petals very short, involuted. Fruit
roundish, compressed, striated, divisi-
ble. Seeds two.

1. *Rotundifolium*. *Thorough-wax*. Stem erect,
about two feet high, branched. Leaves
single, each surrounding the stem, oval,
pointed, glossy, bluish-green. Flowers
yellowish. No general involucrum,
July. Annual. In corn-fields.

2. *Tenuissimum*. *Least Hare's Ear*. Stem about
a foot high, with many branches,
Leaves long, narrow, pointed, sessile.
Umbels

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Umbels simple, alternate. Flowers small, yellowish. July, August. Annual. In pastures, rare.

BUNIAM. General umbel of less than twenty radii; partial umbel very short, but thick set. General involucre of many leaves, linear, short; partial involucre like bristles, as long as the umbel. Fruit oval, divisible. Seeds two.

1. *Bulbocastanum.* *Earth Nut, Pig Nut, or Jar Nut.* Root bulbous, brown on the outside. Stem smooth, about a foot high. Radical leaves long, on foot-stalks, pinnated; pinnae and pinnulae branched, the extreme lobule lance-shaped. Upper leaves much finer, vaginated; all smooth, glossy. Flowers small, white.

PEUCEDANUM. General umbel of many long, slender radii. Partial umbel flat. General involucre of many leaves, linear, small, reflex; partial less. Styles small. Fruit oval, girt by a membrane. Seeds two, oblong, furrowed, girt by a membrane.

1. *Officinalis.* *Hog's Fennel.* Stem erect, jointed, branched, two or three feet high. Leaves 5-tripartite, linear, filiform. Umbels large. Flowers small, yellowish. June. Perennial. In salt fens.
2. *Silva.* *Meadow Saxifrage.* Stem erect, branched, about two feet high. General involucre of two leaves. Leaves decomposite; folioles pinnatifid, segments opposite, dark green on the up-

per side. Petals yellowish, revolute, divided by a middle line. Seeds large, with three deep furrows. August. Perennial. In moist meadows.

CRITHMUM. General umbel of many radii, hemispherical. Partial umbels confimilar. General involucre of many leaves, obtuse, reflex; partial, the length of the umbels. Fruit oval, compressed, divisible. Seeds two, elliptical, striated on one side.

1. *Maritimum. Sampire.* Stem much branched, about a foot high. Radical leaves large, with long, narrow, thick segments. Flowers yellow, on large umbels. August. Perennial. On the sea-coast.

LIGUSTICUM. General and partial umbels of many radii. General involucre membranous, of seven leaves, unequal; partial, of three or four leaves. Petals involuted, intire. Fruit oblong, 5-furrowed. Seeds two, large, long, with membranes on one side.

1. *Scoticum. Scottish Sea Parsley.* Stem two or three feet high, erect, striated, branched at the top. Leaves biternate. Flowers small, white. July. Biennial. On the sea-coast, but rare.

2. *Cornubiense. Cornwall Saxifrage.* Stem three or four feet high, branched. Leaves decomposite, cut-in at the edges; the radical ones ternate, lance-shaped, intire. July. Perennial. In Cornwall.

ANGE-

ANGELICA. General umbel of many radii, roundish. Partial umbel, when flowering, perfectly round. General involucre of three or five leaves, small. Partial umbel small, of eight leaves. Fruit roundish, angular, solid, divisible. Seeds two.

1. *Silvestris. Wild Angelica.* Stem erect, branched, five or six feet high. Leaves large, on vaginal foot-stalks, composed of pinnated foliolæ, serrated, somewhat oval, umbel large. Flowers small, greenish white, June, July. Perennial. In woods, hedges, &c.

SIUM. Partial umbel spreading. General involucre of five—seven leaves, broad, reflex; partial, about the same number, but narrow. Fruit, roundish, striated, small, divisible. Seeds two. Petals heart-shaped.

1. *Latifolium. Great Water Parsnep.* Stem erect, branched, five or six feet high. Leaves pinnated, broad, serrated. Umbels terminal. Flowers small, white. July. Perennial. Rivers, fens, &c.
2. *Nodiflorum. Creeping Water Parsnep.* Stem weak, creeping. Radical leaves pinnated, simple; those on the stalk semitrilobed, and sharp-serrated. Umbels some on short pedicles from the axæ of the leaves, and others on longer ones and terminal. July, August. Perennial. Rivers and ditches.

SISON.

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SISON. General umbel of less than six, and partial less than ten radii, unequal. Involucra each of four leaves, unequal. Fruit oval, striated, divisible. Seeds two.

1. **Amomum.** *Baslard Stone Parsley.* Stem tall, slender, weak, branched. Leaves pinnated, serrated. Umbels erect, terminal. Seeds warm, aromatic. August. September. Perennial. In woods and hedges.

2. **Segetum.** *Corn Parsley, or Honeywort.* Stems numerous, slender, striated, branched, leaning. Leaves pinnated; pinnæ oval, pointed, serrated, six or eight pair, and one at the end. Umbels small, drooping. Flowers minute, white. July. Biennial. Corn-fields, and hedges, &c.

3. **Inundatum.** *Least Water Parsnep.* Stem about eight or ten inches high, branched, creeping. Leaves, below the water, capillary; above, pinnated. Umbels bifid. May, June. Annual. Ditches, ponds, &c. frequent.

** *Involucra* 0.

PASTINACA. General and partial umbels of many radii. Petals curled inwards, lance-shaped, intire. Fruit elliptical, compressed. Seeds two, elliptical, with a margin.

1. **Sativa.** *Parsnep.* Stalk branched, jointed. Leaves pinnated, simple, serrated. Umbels large. Flowers yellow. July. Bien-

Biennial. In the borders of common fields.

SMYRNIUM. General umbel unequal, daily increasing; partial umbel erect. Petals carinated. Fruit oblong, striated. Seeds two, triangular.

1. *Olusatrum. Alexanders.* Stem firm, jointed, striated, branched, three or four feet high. Radical leaves triternate; those above, ternate only; both serrated. Umbels very large. Flowers greenish white. May, June. Biennial. In ditches, and about rocks near the sea.

ANETHUM. General and partial umbels of many radii. Petals curled inwards, minute, intire. Styles obsolete. Fruit somewhat oval, compressed, striated. Seeds two, without a membranous margin.

1. *Foeniculum. Fennel.* Stem round, thick, firm. Leaves divided into a multitude of long narrow segments. Flowers yellow. August. Biennial. On chalk cliffs, frequent.

CARUM. General umbel long, of ten radii, often unequal. Partial umbels crowded. Petals, sometimes a little irregular, heart-shaped, ridged, and cut in the margin. Fruit ovato-oblong, striated. Seeds two, convex on one side, plane on the other, striated.

1. *Carvi. Carraways.* Root conic. Stem branched, about a foot high. Leaves long, bipinnated;

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pinnated ; first pinnulæ decussate on the rib. Umbels terminal. Flowers white. May, June. Biennial. Meadows, &c. frequent.

PIMPINELLA. General umbel of many radii ; partial, of yet more. Petals of the exterior flowers irregular. Styles very short. Fruit ovato-oblong. Seeds two, convex, striated.

1. *Saxifraga.* *Burnet Saxifrage.* Stem slender, much branched, about two feet high. Leaves pinnated, serrated ; those from the root roundish ; upper leaves in five long narrow segments. August. Perennial. In dry pastures.

APIUM. Universal umbel of few radii ; partial, of many. Petals roundish, inflexed. Fruit oval, striated. Seeds two, oval, striated on one side.

1. *Graveolens.* *Smallage.* Stem erect, hollow, angular, branched. Radical leaves, on long pedicles, pinnated ; pinnæ divided into three lobes, and serrated. Upper leaves wedge-shaped. August. Biennial. In fens and ditches.

ÆGOPodium. General umbel of many radii, convex ; partial, of many radii, plane. Petals heart-shaped, the exterior ones not regular. Fruit ovato-oblong, striated. Seeds two, large.

1. *Podagraria.* *Herb-Gerard, Gout-weed, or Ash-weed.* Stem angular, branched, about three feet high. Leaves on triangular pedicles.

pedicles. Radical leaves biternate, with broad sessile foliolæ; those above, ternate, with the foliolæ on pedicles. Umbels few, large. Flowers white. In gardens frequent.

* *Petals five, irregular. Umbels with general and partial involucre.*

ECHINOPHORA. General umbel with intermediate shorter radii. Partial umbel with sessile floscules, several abortive. Partial involucre of one leaf, with six segments, acute, unequal. Seed one, immersed in the involucre.

1. *Spinosa. Prickly Sampire, or Sea Parsnep.* Stem erect, branched. Leaves pinnated; pinnæ thick, with a single furrow, and tapering to a rigid spine. Root like that of the common parsnep, but more branched. July. Perennial. On the sea-coast.

TORDYLIUM. General and partial umbels of many unequal radii; those of the latter very short. Involucra long, simple. Floscules all hermaphrodite. Corollæ radiate. Fruit roundish, notched in the margin. Seeds two.

1. *Latifolium. Purple-flowered Great Bastard Parsley.* Stem about two feet high, striated, rough. Leaves rough, pinnated; pinnæ lance-shaped, cut and serrated. General umbel trifid. June, July. Annual. In corn-fields.

2. *Nodosum.*

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2. *Nodosum. Knotted Parsley.* Stem branched, recumbent, rough. Leaves pinnated, rough. Umbels simple, sessile. Seeds rough. May. Annual. Corn-fields.
3. *Anthriscus. Hedge-Parsley.* Stem short, rough. Leaves pinnatifid, indented, ovato-lance-shaped. Umbels small, compact. Seeds rough, globose. Flowers reddish. August. Biennial. In hedges frequent.

CAUCALIS. General umbel with few, and those unequal radii. Partial umbel with more radii, of which the five exterior are largest. Corollæ radiate, those of the disk male. Fruit spinous.

1. *Leptophylla. Fine-leaved Bastard Parsley.* Stem erect, branched. Leaves regular, conjugate, pinnated, with long narrow segments, indented. General involucre o. Partial involucre of five leaves. Partial umbels small, unilateral. Seeds two, with hooked spines. July. Annual. In corn-fields.

DAUCUS. General and partial umbel of many radii, concave. General involucre of many leaves, as long as the umbel, with linear, pinnated leaves. Partial involucre more simple. Flowers all hermaphrodite. Fruit prickly.

1. *Carota. Wild Carrot, or Bird's-nest.* Stem erect, solid, branched, three or four feet high. Root smaller and harder than the garden carrot. Leaves hairy, and doubly

PENTANDRIA. DIGYNIA. 99.

doubly divided into fine segments. Seeds prickly.

CONIUM. Umbels of many radii, spreading. Involucra of many leaves, very short, unequal. Fruit roundish, with five striæ, notched.

1. *Maculatum*. *Hemlock*. Stem erect, jointed, spotted, branched, five or six feet high. Leaves bipinnated; folioles divided into about seven segments, the last obtuse. Seeds striated. June, July. Annual. In hedges, frequent.

ATHAMANTA. General umbel of many radii; partial fewer. Involucra of many leaves, linear. Fruit ovato-oblong, striated.

1. *Libanotis*. *Mountain Stone-parsley*. Root acrid, conic, aromatic. Stem sometimes very short, and sometimes near two feet high. Leaves large, bipinnated, resembling those of parsley. Umbellulæ very numerous. Umbels hemispherical. Seeds hairy. August. September. Perennial. In dry pastures.

2. *Meum*. *Spignel*. Stem round, branched, striated. Leaves alternate, divided into long capillary segments; those from the root on long pedicles, soft. Flowers white. Seeds striated. May. Perennial. In the mountainous parts of the north and in Wales.

HERACLEUM. General umbel large, of many radii. Involucra deciduous.
Exterior

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Exterior petals much larger, and notched. Fruit elliptical, compressed, striated. Seeds two, with four striæ, foliaceous.

1. *Sphondylium. Cow Parsnep.* Stem hollow, striated, branched, about five feet high. Leaves hairy, large, pinnatifid, quinquefid, with lobes irregularly notched. Flowers hairy, white or reddish, all hermaphrodite. July. Biennial. Hedges, pastures, &c. frequent.

2. *Angustifolium. Jagged Cow Parsnep.* Differs from the last, in the leaves being pinnated crosswise, the foliolæ much narrower, and the corolla greenish, and more regular. *Syst. Nat. Apped.* 57.

OENANTHE. General umbel of few radii; those of the partial umbel numerous, very short or none. Involucre of many leaves, simple. Floscules sessile; those of the disk sterile. Fruit crowned by the calyx.

1. *Fistulosa. Water Dropwort.* Stem creeping under water; above water erect, and almost naked. Radical leaves bipinnated; those on the stem pinnated, linear, fistulous. Partial umbels dense, generally three together. July. Perennial. In fens and ditches frequent.

2. *Crocata. Hemlock Dropwort.* Stem branched, striated, about four feet high. Leaves multifid, large, obtuse. Radii of the general umbel angular. General involucre large. Flowers white. June. Perennial. On the banks of rivers.

3. *Pim-*

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3. *Pimpinelloides*. *Pimpernel Dracwort*. Stem about six inches high, angular. Radical leaves bipinnated, resembling those of parsley; those above simple, linear, channelled, long. Umbel unequal. Flowers white. In fens and ditches. June. Perennial.

** General Involucrum 0.

PHELLANDRIUM. Umbels of many radii. Partial involucrum of seven leaves, acute, and as long as the umbel. Flowers of the disk less. Fruit smooth, oval, crowned by the calyx and pistillum.

1. *Aquaticum*. *Water Hemlock*. Stem very thick, hollow, striated, six feet high, branched. Lower leaves decomposite; upper bipinnated, their ramifications divaricated, and segments narrow. Umbel not very large. Seeds oval, compressed, slightly aromatic. June. Biennial. In rivers, ditches, &c.

CICUTA. Umbels roundish, of many equal radii. Partial involucrum of many leaves, short, narrow. Fruit oval, furrowed. Petals nearly equal.

1. *Virosa*. *Long-leaved Water Hemlock*. Stem three or four feet high, striated, branched. Leaves large, with seven pair of pinnae, long, slender, variously divided, indented, on leafy pedicles. July. Perennial. In shallow pools of water.

• Pollenous.

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ÆTHUSA. General umbel spreading; inner radii gradually less. Partial umbels small, spreading. Partial involucrem, on the out-side only, of three or five long, linear, pendulous leaves. Fruit striated. Petals bifid.

1. *Cynapium.* *Fools Parsley.* Stem furrowed, branched, two or three feet high. Leaves pinnated, smooth, glossy, large, subdivided into narrow segments, somewhat resembling those of hemlock. August, September. Annual. In corn-fields, and a frequent weed in gardens.

CORIANDRUM. General umbel of few radii; partial of many. Partial involucrem, on one side only, of three linear leaves. Corolla radiate; petals inflexed, notched. Fruit spherical.

1. *Sativum.* *Coriander.* Stem two or three feet high, branched. Leaves divided into many narrow segments; the lower leaves broader, pinnated. Root white. The whole plant when bruised smells very disagreeably. June. Annual. Dung-hills, high-roads, &c.

SCANDIX. General umbel long, of very few radii. Partial involucrem of five leaves, as long as the umbel. Petals intire. Fruit long, narrow, taper. Floscules of the disk generally male.

1. *Pecten Veneris.* *Shepherd's Needle, or Venus-comb.* Stem about a foot high, branched. Leaves divided into many narrow segments.

segments. Fruit above an inch long. Radii of the general umbel only two. Leaves of the involucra bifid. June, July. Annual. Corn-fields, frequent.

2. *Anthriscus. Hemlock Wild Chervil.* Stem about two feet high, branched, smooth. Leaves pinnated, resembling those of hemlock, but with shorter and broader pinnæ. Seeds oval, rough. Petals equal. May, June. Annual. In corn-fields and high-roads frequent.

CHEROPHYLLUM. General umbel spreading; partial umbel of nearly the same number of radii. Partial involu-
crum of about five leaves, broad, concave, reflex. Petals roundish, intire. Fruit oblong, smooth.

1. *Sylvestre. Wild Cicely, or Cow-weed.* Stem hairy, thick, hollow, branched, striated. Leaves very large, bipinnated; pinnulæ broad, divided into four or five segments, hairy. Flowers all hermaphrodite. Exterior leaf of the partial involu-
crum much larger than the rest, May, June. Annual. In hedges.
2. *Tumulum. Wild Chervil.* Stem spotted, branched, rough; joints swollen. Leaves hairy, large, bipinnated; pinnulæ narrow, and regular like fern. Umbels drooping. Floscules of the disk male. Seeds broad, yellow, striated. Interior petal cordated. July, August. Annual. In hedges frequent.

III. TRIGYNIA.

Pistilla 3.

* *Corolla monopetalous, regular, above the germen.*

VIBURNUM. Calyx quinque-dentate, small, permanent. Corolla campanulate, with five segments, obtuse, reflex. Styles 0, but a turbinated glandule instead. Fruit a berry, with a single osseous seed.

1. *Lantana.* *Way-faring, or pliant meally Tree.* A small tree, with whitish pliant twigs. Leaves in pairs, oval, pointed, serrated, venous, meally on the under side. Flowers white, in umbels, terminal. Fruit black. May. In hedges.

2. *Opulus.* *Water Elder.* A weak shrub, about six feet high. Leaves, on glandular foot-stalks, divided into three or five lobes, serrated, resembling vine-leaves. Flowers large, white, in umbels. Berry red. May, June. In woods and hedges.

SAMBUCUS. Calyx of one leaf, small, in five segments, permanent. Corolla with five segments, obtuse, reflex. Styles 0, but a tumid glandule. A berry with three seeds.

1. *Nigra.* *Common Elder.* A shrub, or small tree from six to fifteen or twenty feet high. Branches full of pith. Leaves pinnated, serrated. Flowers white, in large umbels, or rather cymes, quinque-partite. Fruit black. April. In woods and hedges.

2. *Ebulus.*

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2. *Ebulus*. Dwarf Elder, Wallwort, or Danewort. An herb, about three feet high. Leaves and flowers like the last, but the leaves are somewhat longer. Cymes tripartite. June, July. Hedges.

** *Corolla pentapetalous, regular, below the germen.*

STAPHYLEA. Calyx of five segments, concave, coloured, equal with the corolla, the petals of which are erect, acute. Capsules three, inflated, joined together by a longitudinal future. Seeds two, globose, with a cicatrix.

1. *Pinnata*. Bladder Nut Tree. A tall shrub, or tree; shoots pithy. Leaves pinnated; pinnae generally five, oblong, pointed, and notched round the edges. Flowers white, in whirls, on long pendulous pedicels. June. In hedges about Pontefract, and in Kent.

ALSINE. Calyx of five concave, pointed leaves. Petals bifid. Capsule unilocular, trivalve. Seeds several, roundish.

1. *Media*. Common Chickweed. Stem weak, branched. Leaves elliptical, pointed, in pairs. Flowers small, white. Stamina uncertain as to number, three, seven, five, or ten. April to October, frequent.

IV. TETRAGYNIA.

Pistilla 4.

PARNASSIA. Calyx in five segments, acute, spreading, permanent. Petals five, regular, notched, striated. Nectaria five, fringed, apex globose. Styles 0. Stigmata four. Capsule unilocular, quadrivalve.

1. *Palustris. Grass of Parnassus.* Stem square, about six inches high. Radical leaves on foot-stalks. Flower long, single, large, white, terminal. August. Perennial. In wet meadows.

V. PENTAGYNIA.

Pistilla 5.

* *Petals five, regular, below the germen.*

STATICE. Calyx of one leaf, funnel-shaped, folded, intire. Seed one.

1. *Armeria. Thrift, or Sea Gilly-flower.* Stem simple, naked, about six inches high. Radical leaves like grass, in a large tuft. Flowers terminal, pale red, in a round head, not very large. July, August. Perennial. In meadows near the sea.
2. *Limonium. Sea Lavender.* Stem naked, branched, about a foot high. Radical leaves long, thick, pointed, on foot-stalks. Flowers blue, in long spikes or panicles.

panicles on the tops of the branches.
July, August. Perennial. On the sea-coast.

3. *Reticulata*. *Matted Sea Lavender*. Stem prostrate, terminated by a panicle of flowers. Branches bent backwards, interwoven. Leaves wedge-shaped. On the sea-coast.

LINUM. Calyx small, of five leaves, erect, permanent. Petals obtuse, large. Capsule globose, decemlocular, quinquevalve. Seeds single.

1. *Ulitatissimum*. *Flax*. Stem erect, about three feet high, branched, hollow. Leaves narrow, pointed, alternate, intire. Flowers blue; calyx angular; capsule pointed. Seeds brown, glossy. June. Annual. In corn-fields.

2. *Perenne*. *Perennial Blue Flax*. Stem about a foot high. Leaves numerous, narrow, pointed, alternate, intire. Capsules and segments of the calyx obtuse. Flowers blue, in thick tufts, terminal. June, July. Perennial. In barren pastures.

3. *Tenuifolium*. *Narrow-leaved Wild-flax*. Stalks numerous, erect, woody, about a foot high, branched. Leaves irregular, narrow, pointed, rough. Flowers large, terminal, on pedicles, single, blue or reddish, with purple lines; calyx sharp-pointed, fringed. June, July. Perennial. In fields near the sea.

4. *Catharticum*. *Purging Flax*. Stem about eight inches high, generally bent, forked towards the top. Leaves oval, pointed,

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opposite, small, sessile. Flowers white, sharp-pointed, terminal, small. May, June. Annual. In dry fields.

DROSER. Calyx of one leaf, quinquefid, pointed, erect, permanent, a little less than the corolla. Capsule oval, unilocular, with five valves at the apex. Seeds numerous, minute.

1. *Rotundifolia.* *Round-leaved Sun-dew.* Stem naked, about four inches high. Leaves concave, round, on pedicles fringed and covered with red hairs, and sprinkled with drops of a transparent fluid. Flowers white, on spikes chiefly unilateral. July, August. Perennial. On bogs, &c.

2. *Longifolia.* *Long-leaved Sun-dew.* Differs from the last in being a somewhat larger plant, and in the elliptical shape of the leaf.

SIBBALDIA. Calyx of one leaf, with ten segments. Petals and stamina inserted in the calyx. Styles from the side of the germens. Seeds five.

1. *Procumbens.* *Bastard Cinquefoil.* Stem procumbent. Leaves three, on the top of a small pedicle, trifid at the extremity, and somewhat hairy. Flowers yellow. July, August. Perennial. In woods in Scotland.

SPERGULA. Calyx of five leaves, concave. Petals oval, concave, intire. Capsule unilocular, quinquevalve. Seeds numerous.

1. Pen-

PENTANDRIA. POLYGYNIA. 59

1. Pentandria. *Small Spurrey*. Leaves very narrow, in whirls at the joints. Seeds black, with a white circle. July. Annual. In Ireland.

VI. POLYGYNIA.

Pistilla many.

MYOSURUS. Calyx of five leaves. Nectaria five, narrow, pointed, resembling petals. Seeds numerous, fixed to a long receptaculum. Germens numerous. Styles 6. The number of the stamina not to be depended on.

1. Minimus. *Muscetail*. Stalks simple, about three inches high. Radical leaves numerous, like grass. Flowers small, greenish. Receptaculum about two inches long, cylindrical, like that of the plantain, but not so thick. April, May. Annual. In meadows, &c.

CLASS

HEXANDRIA MONOGYNIA.

CLASS VI.

HEXANDRIA.

VI. POLYGYNIA.

Stamina 6.

I. MONOGYNIA.

Pistillum 1.

FRANKENIA. Calyx of one leaf, angular, with five sharp teeth, spreading, permanent. Corolla of five petals, roundish, spreading. Stigmata three. Capsule oval, unilocular, trivalve. Seeds many, oval, minute.

1. Levis. Smooth Sea Heath. Stems numerous, branched, procumbent. Leaves small, linear, fringed at the base. Flowers purple, single, sessile. August. Perennial. On the sea-coast.

2. Pulverulenta. Broad-leaved Sea Heath. Differs from the last in the leaves being oval, with a blunt apex, and mealy on the under side. July. Annual. On the sea-coast.

JUNCUS. Calyx of six leaves. Glume bivalve. Corolla o. Capsule unilocular, trivalve, triangular. Stigmata three, long, woolly.

* *Stalks naked.*

1. Acutus. Hard Sea Rush. Stem hard, sharp-pointed, terminated by a panicle of roundish

roundish heads. July, August. Perennial. On the sea-coast.

2. Conglomeratus. *Round-headed Rush*. Stem rigid. Head compact and lateral. July, August. Perennial. Bogs and wet pastures.

3. Effusus. *Common soft Rush*. Flowers on pedicles. Panicle lateral, diffuse. May—August. Perennial. Fens, &c.

4. Inflexus. *Hard Rush*. Stem with the apex membranous and curved. Panicle diffuse, lateral. June. In pastures, &c.

5. Filiformis. *Least soft Rush*. Stem short, slender, drooping. Panicle distant from the top. On boggy mountains.

6. Squarrosus. *Mass Rush*, or *Goose-corn*. Leaves very narrow. Heads round, terminal, naked. June. In waste ground frequent.

**** Stalks leafy.**

7. Articulatus. *Jointed-leaved Rush*. Leaves jointed. Heads sessile. July, August. In wet ground.

8. Bulbosus. *Bulbose Rush*. Root dense, creeping. Leaves narrow. On the upper side grooved, on the under convex, striated. Panicle unequal, terminal. Capsule brown, shining. August. In moist ground frequent.

9. Bufonius. *Toad Rush*. Stem forked. Leaves angular. Flowers sessile, single, with white vagina. July, August. Annual. In landy pastures, &c.

10. Pilosus,

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10. *Pilosus*. *Great hairy Wood Rush*. Stem about two feet high. Leaves somewhat broad and hairy. Panicle branched. April. May. In thick woods.

11. *Campestris*. *Small Hairy Wood Rush*. Stem not so tall as the last. Leaves narrower, and spikes more compact. April. In dry pastures, &c.

* *Monopetalous, regular.*

CONVALLARIA. Calyx 0. Corolla bell-shaped, smooth, with six segments. Berry trilocular, spotted. Seeds single. *Majalis*. *Lily of the Valley*. Stalk naked, slender, angular. Flowers white, in a long unilateral bunch, terminal, fragrant. May. In woods.

2. *Polygonatum*. *Sweet-smelling Solomon's Seal*. Stem single, two-edged, about a foot high. Leaves oval, alternate, their base surrounding the stem, numerous, large. Flowers white, on pedicles from the axils of the leaves, pendulous, single. May, June. Perennial. In the fissures of rocks.

3. *Multiflora*. *Solomon's Seal*. Stem round, near two feet high, drooping. Leaves numerous, alternate, oval, pointed, surrounding the stem with their base. Flowers, generally two or more on each pedicle, pendulous. May, June. Perennial. In woods.

HYACINTHUS. Calyx 0. Corolla bell-shaped, with six segments, reflex. Three

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Three melliferous pores on the top of the germen. Capsule trilocular, trivalve.

1. *Non scriptus*. *English Hyacinth*, or *Hare-bells*. Stem naked, bending at the top, about ten inches high. Leaves long, narrow. Flowers long, blue, on pedicels, in loose spikes, terminal. May. Perennial. In woods and under hedges frequent.

* Six petals, regular.

ACORUS. Spadix simple, cylindrical, covered by the floscules, without a spathe. Petals obtuse. Style o. Capsule trilocular.

1. *Calamus*. *Sweet-smelling Flag*. Leaves thick, narrow, two-edged, about two feet long. Spadix grows from a leaf thicker and rounder than the rest. May. Perennial. In rivers, &c.

** Six petals, regular. Calyx a spathe.

NARCISSUS. Corolla fixed on the out-side of the tube of the nectarium, which consists of one leaf, funnel-shaped, intire. Capsule trilocular, trivalve.

1. *Poeticus*. *Pale Daffodil*. Stem compressed, hollow, striated, single, about a foot high. Leaves long, narrow. Flower generally single, very pale yellow. Nectarium small, yellow. April. Perennial. In meadows, but rare.

h. Pseudo-

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2. *Pseudo Narcissus*. *English Daffodil*. Differs from the last chiefly in the nectarium being erect, and equal in length to the petals of the corolla. March, April. In woods and hedges.

ALLIUM. Common spatha roundish, deciduous, containing several flowers. Antheræ oblong, erect. Stigma acute. Capsule short, broad, trilobed, trilocular, trivalve. Seeds many. Umbel compact.

1. *Ampeloprasum*. *Great round-headed Garlick*. Root lateral. Leaves narrow, flat. Umbel globose. Stamina alternately trifid. Flowers pale purple.

2. *Arenarium*. *Broad-leaved Mountain Garlick*. Stem bearing bulbs. Leaves slightly serrated. Stamina alternately trifid. Flowers pale purple. July. In the north of England.

3. *Vineale*. *Crow Garlick*. Leaves cylindrical, hollow. Head bulbiferous. Stamina with two long bristles exceeding the flower.

4. *Oleraceum*. *Wild Garlick*. Leaves rough, cylindrical. Umbel bulbiferous. Vagina with two horns. Stamina simple. Flower whitish green, with three dark purple striæ on each petal. July. In high pastures, &c.

5. *Ursinum*. *Ramson*. Stem naked, semi-cylindrical. Radical leaves lance-shaped, on foot-stalks. Umbel fastigiate. May. In woods and hedges frequent.

*** Six

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**** Six petals, regular. Calyx a perianthium.

BERBERIS. Calyx of six leaves, spreading, coloured, deciduous, almost as long as the corolla. Two glandules at the base of each petal. Style o. Berry cylindrical, obtuse, unilocular. Seeds two.

1. *Vulgaris.* *Barberry Bush.* A shrub generally six or eight feet high. Bark rough. At the joints of the branches three spines. Leaves alternate, on foot-stalks, elliptical, with sharp teeth round the edges, acid. Flowers yellow, in naked bunches, terminal. Berries red. In woods and hedges frequent.

PEPLIS. Calyx bell-shaped, large, with twelve denticles alternately reflex. Petals very minute, inserted in the calyx. Style very short. Capsule bilocular. Seeds many, small, angular.

1. *Portulaca.* *Water Purslane.* Stems numerous, slender, creeping, four or five inches long, reddish. Leaves opposite, two at each joint, narrow at the base, with a round apex, smooth, intire, pale green. Flowers sessile, in the axæ of the leaves, purplish. September. In ponds, &c.

**** Six petals regular. Calyx o.

FRITILLARIA. Corolla bell-shaped, with a broad bottom and nectariferous cavity near the base of each petal. Stamina close to the style, and the length of the

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the corolla. Capsule oblong, obtuse, trilocular, trivalve. Seeds many, in two rows.

1. *Meleagris*. *Chequered Daffodil*. Root a bulb. Stem slender, about six or eight inches high. Leaves narrow, alternate. Flower large, often single, on a slender pedicle, drooping, chequered with purple. May, June. Perennial. In meadows, &c. Middlesex.

ORNITHOGALUM. Petals lance-shaped, below the middle erect, above spreading, permanent but fading. Stamina short. Style subulate. Capsule angular, trilocular, trivalve.

1. *Luteum*. *Yellow Star of Bethlehem*. Stalk angular, about six or eight inches long, with two small leaves near the top. Radical leaves two, as long as the stem. Flowers on pedicles, in a kind of umbel, green without, yellow within; tube prismatical. April, May. In the northern counties.

2. *Pyrenaicum*. *Spiked Star of Bethlehem*. Radical leaves arenated, convoluted. Stem about two feet high, bearing a long terminal spike of many flowers, greenish, striated on the out-side, on equal pedicles. Filaments subulato-triangular. May. In meadows.

3. *Umbellatum*. *Common Star of Bethlehem*. Radical leaves numerous, carinated, convoluted, obtuse; those on the stem white. Flowers white, with a green rib on

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on the outside, in spikes forming a kind of umbel, the lower pedicles being longest. Stamina alternately sagittated. In woods, meadows, &c.

SCILLA. Petals oval, spreading, deciduous. Stamina and style half the length of the corolla. Capsule smooth, trifurcate, trilocular, trivalve. Seeds many.

1. *Bifolia. Vernal Star Hyacinth.* Stem about six inches high. Radical leaves generally two. Root solid. Flowers blue, generally four, of equal height. April, May. Perennial.

2. *Autumnalis. Less Autumnal Star Hyacinth.* Stem six or eight inches high. Leaves numerous, long, and very narrow. Flowers blue, terminal, in bunches on naked peduncles. Root solid.

ANTHERICUM. Petals oblong, obtuse, spreading. Antheræ small, incumbent. Germen obsolete. Style the length of the stamina. Capsule oval, smooth, trilocular, trivalve. Seeds numerous, angular.

1. *Serotinum. Mountain Saffron.* Stem about four or five inches high, with three or four small leaves, alternate. Radical leaves long, and very narrow. Flower terminal, single, white within and pale red on the outside, below the germen. August. Perennial. On the Welch mountains. *Huds. 122. Bulbocodium.*

2. *Calyculatum*. *Scottish Asphodel*. Leaves ensiform. Stem simple, naked above. Petals long, narrow, greenish, divided by a middle line. Stigmata three. Perianthium trifid. Spike terminal. Root white, fibrous. September. In fens, &c.

3. *Offisragum*. *Bastard Asphodel*. Differs from the last chiefly in the filaments of the pistillum being woolly, which in that are smooth.

ASPARAGUS. Corolla below the germen; three interior petals reflex at the apex. Style very short. Berry trilocular. Seeds two, smooth.

I. *Officinalis*. *Sparagus*. Stem herbaceous, erect, branched, with one exterior and two interior stipulæ. Leaves like threads. Flowers small, greenish. July, August. In meadows near the sea, in the west of England.

II. DIGYNIA.

Pistilla 2.

RUMEX. Calyx of three leaves, reflex. Corolla of three leaves, connivent. Stamina short. Stigmata large. Seed one, triangular.

1. *Digynus*. *Round-leaved Mountain Sorrel*. Stem procumbent. Leaves on foot-stalks, round, notched at the extremity. Calyx and corolla each of two leaves. June. On the Welch mountains, and in the north of England.

POLY-

HEKANDRIA. TRIGYNIA. 99

POLYGONUM. Calyx 0. Corolla 5-partite, resembling a calyx. Stamina and pistilla very short. Seed one, angular.

1. *Hydropiper. Water Pepper, or Arsmart.* Stem erect, jointed, near two feet high. Leaves alternate, long, narrow. Flowers red, in long spikes, terminal. The whole plant acrid. July, August. Annual. Banks of rivulets, ditches, &c.

2. *Perficaria. Dead, or spotted Arsmart.* Stem generally procumbent. Leaves lance-shaped, generally with a large black spot in the middle, and downy beneath. Stipulæ fringed. Flowers in spikes, terminal. August, September. Annual. In fields and waste ground frequent.

LITHRUM. Calyx cylindrical, with twelve teeth. Petals six, inserted in the calyx. Capsule bilocular. Seeds many.

1. *Hyssopifolia. Grass-poly, or small Hedge Hyssop.* Stalks striated, eight inches high. Leaves narrow, alternate. Flowers pale blue, in the axæ of the leaves. In ponds, &c. but rare. August, September. Annual.

III. TRIGYNIA.

Pistilla 3.

RUMEX. Calyx of three leaves, reflex. Corolla of three leaves, connivent. Stamina short. Stigmata large. Seed one, triangular.

H 2

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triangular. Valves of the flower graniferous. Perennial.

1. Sanguineus. *Bloodwort*. Stem three or four feet high. Leaves large, pointed, with red veins, on long red foot-stalks. Flowers reddish, in clusters, terminal. July. Biennial. In the woods near Hampstead.

2. Crispus. *Curled Dock*. Leaves lance-shaped, waved, acute. June, July. In fields, high-roads, &c.

3. Britannica. *Great Water-dock*. Leaves very long, lance-shaped. July, August. In fens and ditches frequent.

4. Maritimus. *Golden Dock*. Leaves very narrow, pointed. Flowers yellow, with indented valves. Among rubbish, high-roads, &c. frequent.

5. Acutus. *Sharp-pointed Dock*. Leaves oblong, very sharp-pointed. June. In moist woods, &c.

6. Obtusifolium. *Broad-leaved Dock*. Leaves broad, obtuse, notched at the end. Valve dentated. July, August. In wet grounds.

7. Pulcher. *Fiddle Dock*. Lower leaves shaped like a fiddle, that is, hollowed out at the sides. Valve dentated. Branches procumbent. June. In dry ground.

TRIGLOCHIN. Calyx and corolla each of three leaves, obtuse, concave, similar, deciduous. Stamina very short. Styles 6. Stigmata reflex, feathered. Seeds single.

1. Palustre.

HEXANDRIA: POLYGYNIA. 101

1. Palustre. *Arrow-headed Grass*. Culm simple, eight or ten inches high. Leaves long, narrow. Flowers greenish, in a long spike, terminal. Capsule trilocular, oblong. July, August. In moist ground frequent.
2. Maritimum. *Sea Spiked Grass*. Culm short. Leaves numerous, long, narrow, semi-cylindrical. Spike long. Flowers purplish. Capsule sexlocular, oval.

COLCHICUM. Calyx 6. Corolla sexpartite; tube angular; segments concave, erect. Germen within the root. Antheræ quadrivalve. Capsule trilocular. Seeds several, wrinkled.

1. Autumnalis. *Meadow Saffron*. Stem c. Leaves large, lance-shaped, erect, generally perish before the flower appears. Flower purplish white, and large, of six petals rather than sexpartite. Root bulbous.

V. POLYGYNIA.

Pistilla more than 5.

ALISMA. Calyx of three leaves, concave, permanent. Corolla of three leaves, large, roundish, spreading. Capsules compressed. Seeds single, small.

1. Plantago. *Great Water Plantain*. Stem single, about two feet high, with many branches at the top. Radical leaves oval, sharp-pointed, intire, on long foot-stalks.

H 3

Flowers

Flowers reddish white. Fruit triangular. June. Banks of rivers, &c. frequent.

2. *Damaſonium. Star-headed Water Plantain.* Stem about eight inches high, much branched, inclining leaves oblong, on foot-stalks. Flowers white, ſingle, hexagynia, on pedicles, in cluſters. Fruit hexangular. June—September. In ſtagnant water.

3. *Natans. Creeping Water Plantain.* Stem creeping. Leaves ſomewhat oval, obtuſe; others long and narrow. Flowers ſingle, on pedicles. Auguſt. In lakes, &c.

4. *Ranunculoides. Leſs Water Plantain.* Stem erect, about a foot high. Leaves long, narrow. Flowers bluſh white, on ſingle pedicles. Fruit round and rough. June—Auguſt. Not common.

CLASS

CLASS VII.

HEPTANDRIA.

Stamina 7.

MONOGYNIA.

Pistillum 1.

TRIENTALIS. Calyx of seven leaves.
Corolla of one petal, in seven segments.
Berry unilocular, dry. Seeds few, angular.

1. Europæa. *Chickweed Winter-green*. Stalk slender, five or six inches high, naked to the top, near which there are six or seven lance-shaped leaves. Flowers stellate, white, single, on long pedicles, terminal. June. In woods, &c. in the northern counties.

C L A S S VIII.

OCTANDRIA.

Stamina 8.

I. MONOGYNIA.

Pistillum 1.

EPILOBIUM. Calyx quadrifid, above the germen. Corolla of four petals, regular. Capsule long, cylindrical, quadrilocular. Seeds numerous, downy. Receptacles very long, angular, flexile, coloured.

1. *Angustifolium.* *Rosebay Willow-herb.* Stem reddish, erect, firm, four or five feet high. Leaves long, narrow, sessile, irregular, numerous. Flowers red, on pedicles, in long spikes; stamina and pistillum inclining. July, August. Perennial. Woods and hedges.
2. *Hirsutum.* *Hairy Willow-herb.* Stem branched, three or four feet high. Leaves opposite, decurrent, lance-shaped, serrated, hairy. Flowers red, terminal; petals bifid. July. Perennial. On the banks of rivulets, &c. frequent.
3. *Montanum.* *Smooth-leaved Willow-herb.* Stem branched, three or four feet high, very soft to the touch. Leaves opposite, oval, indented, smooth. Flowers small, red,

red; petals bifid, numerous, terminal.
June, July. Biennial. In moist meadows.

4. *Tetragonum*. *Narrow-leaved Willow-herb*. Stem square. Leaves opposite, narrow, indented, smooth. Spike inclining. Flowers red, petals bifid. July. Perennial. On the banks of rivulets, ditches, &c.

5. *Palustre*. *Marsh Willow-herb*. Stem erect, round. Leaves long, narrow, opposite, intire, smooth. Flowers numerous, large, red; petals bifid. July. Fens, &c.

6. *Alpinum*. *Mountain Willow-herb*. Stem scarce a foot long, creeping. Leaves somewhat oval, pointed, opposite, intire. Flowers few, small, light purple, bifid. Pods sessile. July. Northumberland, in rivulets.

VACCINUM. Calyx minute, quadridentate, above the germen, permanent. Corolla generally quadrifid. Filaments inserted in the receptaculum. Style longer than the stamina. Berry quadrilocular, with many angular seeds.

1. *Myrtillus*. *Black Wortle Berries, or Bilberries*. A small shrub. Stem angular, branched. Leaves oval, serrated, deciduous. Flowers reddish white, on single pedicles, pendulous. Fruit bluish black, small. April. In woods, heaths, &c.

2. *Uliginosum*. *Great Bilberry Bush*. A shrub about two feet high. Leaves oval, intire, fringed at the base, deciduous. Flowers

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Flowers single, purplish white. Fruit bluish black, larger than the last. April, May. In the north.

3. *Vitis idæa*. *Red Wortle Berries*. An ever-green shrub. Stem inclining. Leaves oval, narrowest near the foot-stalk, intire, spotted on the under-side. Flowers reddish white, in pendulous clusters. Berries red. April, May. In the mountainous parts of the northern counties.

4. *Oxycoccus*. *Crane Berries*. An ever-green shrub. Stem very slender, creeping, naked. Leaves intire, oval, curled. Flowers reddish white, on pedicles. Fruit red. May, June. On moors in the northern counties.

ERICA. Calyx of four leaves, coloured, permanent. Corolla campanulate, quadrifid. Filaments inserted in the receptacle. Capsule quadrilocular, quadrivalve. Seeds numerous, minute. Slender shrubs.

* *Antheræ with two horns*.

1. *Vulgaris*. *Common Heath or Ling*. Stem slender, brown, woody, one or two feet high. Leaves imbricated, covering the stem in a quadruple series. Flowers purplish, in spikes, terminal; corolla like the calyx, unequal. June—September. On heaths frequent.

2. *Cinerea*. *Fine-leaved Heath*. Stem simple, woody; bark ash colour. Leaves narrow,

OCTANDRIA. MONOGYNIA. 107

row, smooth, in triple series. Flowers crimson, pendulous, in terminal spikes.

3. *Tetralix. Cross-leaved Heath.* Leaves quadruple, hairy, spreading. Corolla nearly globose, aggregate, longer than the calyx. July, August. On moist heaths.

** *Antheræ simple, obtuse, notched.*

4. *Ciliaris. Rough-leaved Heath.* Leaves triple, hairy, sessile, spreading, acute, reflex. Corollæ irregular, oval, large, in terminal, triple whirls. June. On heaths.

5. *Multiflora. Fir-leaved Heath.* Leaves narrow, quintuple. Flowers numerous; corollæ campanulate, long. June, July. Heaths in Cornwall,

6. *Daboecii. Irish Worts.* Stem woody, branched, hairy, brown. Leaves oval, alternate, sub-sessile, curled at the edges, white and downy on the under side. Flowers large, in long terminal bunches. Ireland. *Huds.* 143.

DAPHNE. Calyx o. Corolla of one petal, funnel-shaped; tube cylindrical, imperforate; limb quadrifid; segments acute, spreading. Stamina very short, inserted in the tube. Style very short. Berry unilocular, with a single seed.

1. *Mezereum. Spurge Olive.* A strong shrub, four or five feet high. Flowers sessile, round the stem, pale red, appear before the leaves, which are lance-shaped, smooth, crowning the tops of the branches. March. In woods near Andover.

2. Lau-

2. *Laureola. Spurge Laurel.* An ever-green shrub, four or five feet high. Leaves on the tops of the branches, numerous, lance-shaped, smooth. Flowers from the axæ of the leaves, yellowish green, small, on pedicles. March, April. In woods.

II. DIGYNIA.

Pistilla 2.

GENTIANA. Calyx octifid. Corolla of one petal, octifid, length of the calyx, without tube. Styles 2. Capsule oblong, pointed, unilocular, bivalve. Seeds numerous, small.

1. *Perfoliata. Yellow Centaury.* Stem about two feet high, at the top branched and subdivided. Leaves perfoliate, united at the base, lance-shaped, entire. Flowers yellow, in loose clusters, terminal. July. Annual. In high pastures.

III. TRIGYNIA.

Pistilla 3.

POLYGONUM. Calyx 3. Corolla 5-partite, resembling a calyx. Stamina and pistilla very short. Seed one, angular.

1. *Bistorta. Great Bistort, or Snakeweed.* Stem simple, round, slender, jointed, near two feet high. Lower leaves on foot-stalks, oval, whitish on the under-side; upper

upper leaves narrower, surrounding the stem at their base. Flowers pale red, in one short thick spike. May, June. In wet meadows.

2. *Viviparum*. *Small Bistort* or *Snakeweed*. Stem simple, slender, jointed, six or eight inches high. Radical leaves broad, the rest long, narrow. Flowers whitish, on a single thin spike. June. In high pastures in the north.

3. *Pensylvanicum*. *Pale Arsmart*. Stem with many branches, angular. Leaves lance-shaped, pointed, with a rough longitudinal ridge on the under-side. Flowers on rough glutinous pedicles, in loose spikes. August. Annual. In fields and waste ground frequent.

4. *Maritimum*. *Sea Knot-grass*. A shrubby evergreen. Leaves oval, thick, whitish beneath. Flowers white, quatern, in the axæ of the leaves. July. Perennial. On the coast.

5. *Aviculare*. *Knot-grass*. Stem herbaceous, procumbent, branched. Leaves lance-shaped, but various. Flowers reddish white, in the axæ of the leaves. June—September. Annual. In fields, &c. frequent.

6. *Convolvulus*. *Black Bindweed*. Stem weak, voluble, striated. Leaves heart-shaped, single, distant. Flowers whitish, in loose clusters, from the axæ of the leaves. Seed triangular. June,——September.

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ber. Annual. In corn-fields, &c. frequent.

7. *Fagopyrum*. *Buck-wheat*, or *Brank*. Stem single, erect, branched, about two feet high. Leaves heart-shaped, pointed, on pedicles. Flowers purplish white, on pedicles, in loose spikes. July, August. Annual. In corn-fields, &c. frequent, though not a native.

IV. TETRAGYNIA.

Pistilla 4.

PARIS. Calyx of four leaves. Petals four. Berry quadrilocular. Seeds numerous.

1. *Quadrifolia*. *Herb Paris*, *True-love*, or *One-berry*. Stem single, simple, about ten inches high. Leaves oblong, four or five, near the top. Flower greenish white, single, terminal. Berry bluish black. May, June. In woods.

ADOXA. Calyx bifid. Corolla quadrifid, or quinquifid, above the germen. Berry quadrilocular, between the calyx and corolla.

1. *Moschatellina*. *Tuberous Moschatel*, or *Musk Wood Crowfoot*. Stalk smooth, slender, about four inches high, with a pair of lobed leaves in the middle, on short foot-stalks. Flowers terminal, five, yel-

OCTANDRBA. TETRAGYNIA. III

yellowish green. Berries green. April,
May. In woods.

ELATINE. Calyx of four leaves. Pe-
tals four. Capsule quadrilocular, qua-
drivalve, depressed. Seeds many.

1. Alfinastrum. *Waterwort*. Leaves long and
very narrow, in whirls. August. In
ditches.

CLASS

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C L A S S IX.

ENNEANDRIA.

Stamina 9.

HEXAGYNIA.

Pistilla 6.

BUTOMUS. Calyx 0. Petals six,
Capsules six. Seeds many.

1. Umbellatus. *Flowering Rush*, or *Water Gladiolus*. Stem round, thick, naked, about two feet high. Radical leaves numerous, long, narrow. Flowers reddish white, in a kind of umbel, terminal. June. Rivers, ditches, &c.

CLASS

DECANDRIA. MONOGYNIA.

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DECANDRIA.

Stamina 10.

I. MONOGYNIA.

Pistillum 1.

MONOTROPA. Calyx 6. Petals ten, serrated at the top, deciduous; the exterior five gibbous, melliferous. Capsule oval, pentangular, quinquevalve. Seeds numerous, chaffy. *N. B.* This description respects the terminal flower only; the lateral flowers have only eight stamina, &c.

1. Hypopithis. *Bird's Nest.* Stalks twisted, naked, except a few loose membranes, eight or ten inches high. Flowers yellow. The whole plant smells like primrose roots. July. Perennial. In woods, but rare.

ANDROMEDA. Calyx with five segments. Corolla oval, of one petal, quinquefid, reflex. Capsule quinquelocular, quinquevalve. Seeds numerous, polished

1. Polifolia. *Marsh Cistus, or Wild Rosemary.* Stem short, branched. Leaves narrow, curved

DECANDRIA, MONOGYNIA.

curved at the edges, and alternate. Flowers reddish, on pedicles, in clusters. April, May. On turfbogs in the north.

ARBUTUS. Calyx minute, quinque-partite, permanent. Corolla of one petal, oval, quinquefid, reflex. Berry quinquelocular. Seed small, hard.

1. Unedo. *Common Strawberry-tree*. A shrub. Stem erect. Leaves smooth, serrated. Flowers white. Berries red, with many seeds. In the west of Ireland.

2. Alpina. *Mountain Strawberry-tree*. Stem procumbent, about a foot long. Leaves rough, serrated. Fruit large, bluish black. In the north.

3. Uva Ursi. *Perennial leaved Arbutus*. Stems woody, numerous, diffuse, procumbent. Leaves oval, entire. Flowers white, on pedicles, in clusters, with a purple calyx. *Wallis Northumb. p. 148.*

PYROLA. Calyx minute, in five segments, permanent. Petals five, roundish, concave, spreading. Capsule quinquelocular, opening at the angles.

1. Rotundifolia. *Common Winter-green*. Stem single, simple, about six inches high. Radical leaves smooth, roundish, on very long foot-stalks. Flowers white, bell-shaped, on slender pedicles, in a short thin spike; stamina ascending; pistillum declined. June, July. In woods, chiefly in the north.

2. Minor.

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2. Minor. *Leaf Winter-green.* Stem about four inches high. Leaves generally serrated. Spike compact; flowers reddish white; stamina and pistillum erect. August. With the last.

3. Secunda. *Tender Winter-green.* Stalk slender, about six inches high, with a spike on one side only. Leaves pointed, serrated. June. In woods in the north.

II. DIGYNIA.

Pistilla 2.

CHRYSOSPLENIUM. Calyx above the germen, in four or five segments, coloured, spreading. Corolla o. Stamina in the lateral flowers, generally but eight, very short. Capsule with a double beak, unilocular, bivalve, with several small seeds.

1. Alternifolium. *Alternate-leaved golden Saxifrage.* Stalk five or six inches long. Leaves roundish, hairy, notched round the edges, on long foot-stalks, pale green. Flowers on short pedicles, in small clusters, terminal, bright gold colour. April. In woods in the north.

2. Oppositifolium. *Common golden Saxifrage.* Leaves roundish, on short foot-stalks, opposite. Flowers gold colour, in the axæ of the leaves, very small. Stalks weak, four inches high. April. In woods near Hampstead, &c.

SAXIFRAGA. Calyx small, in five acute segments. Corolla of five petals, spreading.

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Spreading. Capsule with two beaks, unilocular, opening between the points. Seeds numerous, small.

* *Leaves undivided. Stalks naked.*

1. *Stellaris. Hairy Kidney-wort.* Stalks simple. Leaves oblong, indented at the end, hairy. Flowers white, petals pointed, with a semilunar yellow spot near the base, in a loose terminal spike. June, July. Perennial. On high mountains near water.

2. *Nivalis. Mountain Sengreen.* Radical leaves oval, notched, on short foot-stalks, spread in tufts upon the ground. Stalk simple, about a foot high, bearing a roundish spike of white flowers; petals acute, spotted. June. On the Welch mountains.

** *Leaves undivided. Stem bearing leaves.*

3. *Oppositifolia. Mountain Heath-like Sengreen.* Stem creeping; branches numerous, short, procumbent. Leaves oval, opposite, quadruple, imbricated, fringed. Flowers blue, single; calyx hairy, purple. April, May. Perennial. Among rocks, on high mountains.

4. *Autumnalis. Autumnal Sengreen.* Stalks several, simple, about a foot high. Radical leaves in tufts, prickly at the edges; those on the stalk narrow, alternate, fringed. Flowers yellow, spotted, on long pedicles, from the axæ of the upper leaves. July, August. On turf-bogs in Cheshire, &c.

5. *Aizoides.*

5. *Aizoides*. *Yellow Mountain Sengreen*. Differs from the last in the stem being procumbent, the leaves not fringed, and growing less regularly alternate on the stem. August. On the sides of mountains in the north.

*** Leaves lobed. Stem erect.

6. *Granulata*. *White Sengreen*, or *Saxifrage*. Root granulated. Stem a foot high, branched, with few leaves, alternate. Radical leaves reniform, lobed, on long pedicles. Flowers large, white, in short loose spikes; calyx hairy. May. In dry meadows, &c.

7. *Tridactylites*. *Red-leaved Sengreen*, or *Willow-grass*. Stem small, branched, hairy, clammy, often red. Leaves alternate, wedge-shaped, trifid, hairy; the lower ones on long foot-stalks. Flowers white, single, on pedicles, from the axæ of the leaves. April. Annual. In waste ground, on walls, &c.

8. *Cespitosa*. *Small Mountain Sengreen*. Radical leaves numerous, narrow, some intire, others bifid or trifid, in a thick tuft on the ground. Stem almost naked, about three inches high, bearing two or three greenish white flowers. August. Perennial. On the mountains in Westmoreland, &c.

**** Leaves lobed. Stem procumbent.

9. *Hipnoides*. *Trifid Sengreen*. Stem about six inches high, much branched, clammy, reddish. Leaves narrow, trifid, clammy, on pedicles. Flowers greenish white.

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April, May. On mountains in the northern counties.

SCLERANTHUS. Calyx tubular, quin-
quid. Corolla o. Stamina minute.
Capsule oval, minute, in the neck of the
calyx. Seeds two.

1. *Annus.* *German Knot-grass, or Knawel.* Stem branched, procumbent. Leaves long, narrow, opposite. Calyx of the fruit spreading. Flowers greenish, in the axæ of the leaves, small. August. Annual. In corn-fields, &c.
2. *Perennis.* *Perennial Knawel.* Stem shorter, and flowers larger than the last. Calyx of the fruit shut. Flowers in terminal bunches. Leaves hoary. August. In sandy corn-fields.

SAPONARIA. Calyx of one leaf, tubular, with five teeth; permanent, generally bursting on one side. Corolla of five petals, unguiculate. Capsule the length of the calyx, covered, unilocular, cylindrical. Seeds several, small.

1. *Officinalis.* *Sopewort.* Stem branched, about two feet high. Leaves elliptical, long, pointed, with three longitudinal ribs, firm, smooth, opposite. Flowers white or reddish, in umbels terminating the branches. July, August. In hedges, &c.

DIANTHUS. Calyx of one leaf, cylindrical, tubular, striated, with five teeth, and four scales round the base. Corolla of five petals, with ungues as long

long as the calyx. Styles longer than the stamina. Capsule cylindrical, covered, unilocular.

1. *Armeria. Deptford Pink.* Stem jointed, above a foot high. Leaves in pairs, pointed, broad. Flowers red, in the axæ of the leaves, aggregate, in clusters; scales of the calyx hairy, lance-shaped; petals pointed, jagged. July. Annual. In meadows, &c.
2. *Prolifer. Linewort.* Stem branched, quite a foot high. Leaves opposite, long, narrow. Flowers small, red, aggregate, in roundish heads; scales of the calyx oval, obtuse, longer than the tube. August. Annual. Rare.
3. *Deltoides. Maiden Pink.* Stem branched, part procumbent, part erect, six or seven inches high. Leaves opposite, oblong. Flowers bright red, single, terminal; petals notched. June—September. Perennial. In meadows, heaths, &c.
4. *Glaucus. Mountain Pink.* Stem branched. Scales of the calyx lance-shaped, short. Flower white. Corolla notched. July. Perennial. On mountains.
5. *Arenarius. Stone Pink.* Stem with a single flower. Scales of the calyx obtuse. Flower red, hairy; petals multifid. Leaves narrow. July. Perennial. In dry-pastures, &c. but rare.

III. TRIGYNIA.

Pistilla 3.

CUCUBALUS. Calyx inflated, with five teeth, permanent. Corolla of five regular, bifid, unguiculated petals, not crowned by a nectarium. Capsule covered, pointed, trilocular. Seeds many. Leaves opposite.

1. *Bacciferus.* *Berry-bearing Chickweed.* Stem weak, procumbent, branched, forked. Leaves at the joints, in pairs, oval, pointed. Calyx campanulate. Flowers small, white; petals distant from each other. Pericarpium like a berry, coloured. July. In hedges in the Isle of Man.

2. *Behen.* *Bladder Campion, or White Corn-campion.* Stem about two feet high, jointed, branched, procumbent. Leaves smooth, oval, pointed at the joints, opposite, pale. Flowers white, on foot-stalks, single. Calyx globose, white, smooth, reticulate. July. In corn-fields, &c.

3. *Viscosus.* *Dover Campion.* Stem undivided, somewhat clammy. Leaves broad, opposite, hairy, reflex at the base. Flowers white; lateral flowers decumbent; they expand only in the night. July. On Dover Cliffs, &c.

SILENE. Calyx bellying, with five teeth, permanent. Corolla of five regular,

- gular, bifid; unguiculated petals; crowned by a nectarium. Capsule cylindrical, covered, trilocular. Seeds many. Leaves opposite.
1. *Anglica. Small Corn Champion or Catchfly.* Stem weak, hairy, above a foot high. Leaves oblong, in pairs at the joints. Flowers small, white, intire, on pedicles from the axæ of the leaves, erect, alternate, single, lateral. June, July. Annual. In corn-fields.
 2. *Nutans. Nottingham Catchfly.* Stem about two feet high, firm. Radical leaves broad, obtuse, in a tuft; those on the stem narrow, acute. Flowers white, in lateral panicles; petals bifid, curled; calyx long, bellying a little, with ten longitudinal striae. June, July. Perennial. In high pastures, &c.
 3. *Amoena. Sea Champion.* Stem two or three feet long, slender, procumbent, branched alternately. Leaves long, narrow. Flowers white, on opposite pedicles, three on each, in unilateral bunches. Calyx 10-angular, hairy, purplish. August. On the south coast.
 4. *Conoidea. Greater Corn Catchfly, or Champion.* Leaves narrow, soft. Calyx conical, with thirty striae. Flowers from the divarications of the stem; petals intire. In corn-fields.
 5. *Noctiflora. Night-flowering Catchfly.* Stem about two feet high, forked. Calyx 10-angular, somewhat clammy, oval, with longer teeth than the other species; petals

petals reddish white. July. In corn-fields.

6. *Armeria. Broad-leaved Catchfly.* Stem about eighteen inches high, erect, with few branches. Leaves smooth, sessile, broad at the base. Flowers terminal, in fastigiate bundles, small, red. August. Annual. On the banks of rivers.

7. *Acaulis. Moss Campion.* Radical leaves spread on the ground like a tuft of moss. Stalks about an inch long, naked, bearing each a single purple flower. July. On mountains in Wales, &c.

STELLARIA. Calyx of five leaves, spreading, permanent. Corolla of five petals, each in two segments. Capsule oval, covered, unilocular, sexvalve. Seeds several.

1. *Nemorum. Broad-leaved Stitchwort.* Stem not quite erect, simple. Leaves opposite, broad at the base, waved round the edges, pointed, on foot-stalks. Flowers terminal, in loose panicles, white. July, August. In woods, banks of rivers, &c. in the north.

2. *Holostea. Greater Stitchwort.* Stalks numerous, slender, jointed, near two feet long. Leaves opposite, harsh, lance-shaped, slightly serrated. Flowers white, numerous. April, May. In woods and hedges frequent.

3. *Graminea. Less Stitchwort.* Stem more firm than the last, and not quite a foot high. Leaves narrower, opposite, entire. Flowers

ers in loose panicles, white, July. In moist ground frequent.

ARENARIA. Calyx of five leaves, spreading, permanent. Corolla of five petals, intire, oval. Capsule unilocular, covered, oval, opening at the top in five parts. Seeds many. Leaves opposite.

1. *Peploides.* *Sea Chickweed.* Stalks short, numerous, spreading on the ground, thick set with leaves, opposite, oval, pointed, thick. Flowers small, white. Capsule large. June, July. On the coast frequent.
2. *Trinervia.* *Plantain leaved Chickweed.* Stem about six inches high, numerous, weak. Leaves oval, pointed, with three longitudinal ribs, on foot-stalks. Flowers white, on pedicles. May. Annual. In moist woods and hedges frequent.
3. *Serpyllifolia.* *Least Chickweed.* Stalks numerous, branched, about three inches high. Leaves sessile, oval, pointed. Flowers white, numerous, terminal; petals intire. May, June. Annual. On walls and sandy ground frequent.
4. *Saxatilis.* *Mountain Chickweed.* Stalks numerous, much branched, about three inches long. Leaves narrow, linear, close. Flowers on pedicles, single, in terminal panicles, or umbels. August. In the mountainous parts of the kingdom.
5. *Tenuifolia.* *Fine-leaved Chickweed.* Stalks branched, procumbent or erect, thick set

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set with leaves. Leaves narrow, pointed. Flowers single, on pedicles, in terminal panicles. Petals shorter than the calyx. Capsules erect. June, July. On walls, &c. but rare.

6. *Laricifolia*. *Larch-leaved Chickweed*. Root woody. Stalks several, almost naked at the top, six inches high. Leaves in bundles, like bristles, but soft. Flowers single, terminal, large. Calyx hairy. August. On the mountains in the north.

7. *Rubra*. *Purple-flowered Chickweed*, or *Spurry*. Stalks numerous, weak, jointed, three or four inches high. Leaves narrow, with membranous vaginal stipule. Flowers purple, on pedicles, single. June, July. Annual. In corn-fields, and on the coast.

V. PENTAGYNIA.

Pistilla 5.

COTYLEDON. Calyx small, quinquefid, acute. Corolla of one petal, bell-shaped, quinquefid. Germina five, with a nectariferous scale at the base of each. Capsules five, oblong, univalve. Seeds several.

1. *Umbilicus*. *Navelwort*, *Kidneywort*, or *Wall Pennywort*. Stem about six inches long, branched. Radical leaves round, an inch in diameter, notched round the edges, on long foot-stalks fixed in the center of the leaf. Flowers yellowish, in

Some leaves are here misplaced - which are to be found at the end of this volume after the Index

Book Binder

in long spikes. May--July. Perennial. On old walls, &c. but rare.

on the wall by the S. Gate at Cardigan + in the Keep

SEDUM. Calyx quinquifid, acute. Corolla of five petals, pointed, spreading. Germina five, oblong, with a nectariferous scale at the base of each. Capsules five. Seeds many, small.

1. *Telephium.* *Orpine*, or *Live-long*. Stem near two feet high, erect, thick set with oblong serrated leaves, which, with the stem, are bluish green, succulent, and often reddish. Flowers large, purple, in terminal leafy bunches. August. In pastures, &c.

2. *Dasyphyllum.* *Round-leaved Stonecrop*. Stem weak. Leaves oval, thick, obtuse, opposite. Flowers white, scattered. July. Annual. On walls, &c.

3. *Reflexum.* *Yellow Stonecrop*, or *Prick-madam*. Stalks some procumbent, others erect, often red. Upper branches curved. Leaves numerous, scattered, thick, ending in a sharp point, with a loose membrane at the base. Flowers yellow, in bunches, terminal. On walls, &c. frequent.

4. *Rupestre.* *St. Vincent's Rock Stonecrop*. Stem procumbent. Leaves thick, narrow, pointed, with loose membranes at the base, numerous, five together. Flowers yellow, in bunches, terminal. August. On rocks, &c.

5. *Album.* *White-flowered Stonecrop*. Leaves thick, numerous, obtuse. Flowers white, in branched

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branched bunches, terminal. June, July. On walls, &c. frequent.

6. Acre. *Wall Stonecrop*, or *Pepper*. Stalks weak, three or four inches high, thick set with thick, oval, pointed leaves, alternate. Flowers yellow, in trifid bunches, terminal. June. On walls, &c. frequent.

7. Sexangulare. *Insipid Stonecrop*. Leaves oval, sessile, gibbous, imbricated, six together. Branches not numerous. Flowers yellow, generally three on each branch of the cluster. July. Biennial. In dry meadows.

8. Annum. *Mountain Stonecrop*. Stem single, erect, but weak. Leaves oval, sessile, gibbous, whitish, alternate. Flowers white, or mixed with red, on curved branches. Not acrid. August. Annual.

9. Villosum. *Marsh Stonecrop*. Stalks erect, about six inches high, some smooth, others hairy. Leaves not very thick, obtuse. Flowers pale red, with a purple line, on hairy pedicles, in clusters, terminal. June. Annual. On mountains in the north.

OXALIS. Calyx of five leaves, or parts. Corolla of five petals, adhering to each other by their claws. Exterior stamina shortest. Capsule pentangular, quinquelocular.

1. Acetosella. *Wood Sorrel*. Root long, scaly, jointed. Leaves heart-shaped, three on each

each foot-stalk. Flowers reddish white, single, on slender stalks or rather pedicels. April. In woods, &c.

2. *Corniculata*. *Yellow-flowered Wood Sarrel*. Stem branched, diffuse, procumbent, creeping, reddish. Leaves ternate, heart-shaped, pale-green, about the size of the nail of the little finger, on slender foot-stalks near an inch long. Flowers yellow, on umbelliferous pedicles. Capsules long, pointed. May--October. I am obliged to Mr. John Turner of Lympton, near Exeter, for a specimen of this plant, who found it in several places in the neighbourhood of that city, and who, I believe, is the only person that has observed it in these kingdoms.

AGROSTEMA. Calyx of one leaf, as long as the corolla, coriaceous, tubular, with five teeth. Petals five, with claws as long as the tube of the calyx, spreading, obtuse, intire. Capsule oval, covered, unilocular, quinquevalve. Seeds several, punctured.

1. *Githaco*. *Cockle*. Stem erect, branched, hairy, two feet high. Leaves opposite, long, narrow, hairy, sessile. Flowers terminal, large, purple. June. Annual. In corn-fields.

LICHNIS. Calyx tubular, smooth, membranous, with five teeth. Corolla of five petals. Styles longer than the stamina.

mina. Capsule covered, oval, quinquevalve. Seeds several.

1. *Flos Cuculi.* *Meadow Pink, or Cuckow-flower.* Stem about two feet high, branched, striated, hollow. Leaves opposite, long, narrow, sessile. Flowers red, large, terminal; petals quadrifid. June. In moist meadows, &c.

2. *Viscaria.* *Red German Catchfly.* Stem erect, simple, clammy towards the top. Leaves opposite, sessile, oblong, pointed. Flowers small, red, in clusters, terminal; petals intire. May, June. In high grounds.

CERASTIUM. Calyx of five leaves, spreading. Petals five, the length of the calyx, obtuse, bifid. Capsule unilocular, with five teeth at the apex. Seeds many. Leaves opposite, sessile.

* *Capsules oblong.*

1. *Vulgatum.* *Narrow-leaved Mouse-ear Chickweed.* Stalks jointed, branched, diffuse, about a foot high. Leaves hairy, oval, pointed. Flowers small, white in the axæ of the upper leaves. June. Annual. In meadows, &c. frequent.
2. *Viscosum.* *Broad-leaved Mouse-ear Chickweed.* Stalks erect, hairy, clammy. Leaves hairy, obtuse. Flowers like the last. April, May. Annual. In dry meadows, &c.
3. *Semidecandrium.* *Least Mouse-ear Chickweed.* Stalks diffuse, branched, two inches high.

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high. Leaves hairy. Flowers white, small; five of the stamina have no antheræ. April. In meadows frequent.

4. *Arvense. Corn Mouse-ear Chickweed.* Stalks weak, in part procumbent, six or eight inches high, hairy. Leaves narrow, smooth. Flowers large, white, in the axæ of the branches, and at the top; corolla longer than the calyx. May. In fields, &c. on gravel.

5. *Alpinum. Mountain Mouse-ear Chickweed.* Stalks numerous, procumbent, divided. Leaves oval, pointed. Flowers large, white; petals longer than the calyx. June.

* *Capsules roundish.*

6. *Aquaticum. Marsh Mouse-ear Chickweed.* Stalks procumbent, a foot long. Leaves heart-shaped. Flowers white, single; fruit pendulous. July. On the banks of rivers.

7. *Tomentosum. Woolly Mouse-ear Chickweed.* Leaves oblong, woolly. Flowers large, on branched pedicles. Capsule globose. May. On the Welch mountains frequent.

SPERGULA. Calyx of five leaves, concave, spreading. Petals five, oval, concave, spreading, larger than the calyx, intire. Capsule oval, covered, unilocular, quinquevalve. Seeds several.

1. *Arvensis*. *Corn Spurry*. Stalks erect, jointed, branched towards the top. Leaves narrow, in whirls round the joints. Flowers small, white, terminal. August. Annual. In fields, on gravel.

2. *Nodosa*. *Knotted Spurry*, or *English Marsh Saxifrage*. Stalk simple, procumbent, five inches long. Leaves smooth, narrow, pointed, two larger at each joint, opposite. Flowers white, terminal.

3. *Alpinum*. *Mountain Saxifrage*. Stalks numerous, procumbent, divided. Leaves oval, pointed. Flowers large, white; petals longer than the calyx. June.

4. *Aquaticum*. *Marsh Saxifrage*. Stalks procumbent, a foot long. Leaves heart-shaped. Flowers white, large. Fruit pendulous. July. On the banks of rivers.

5. *Tomentosum*. *Woolly Saxifrage*. Leaves oval, woolly. Flowers large, white. On the Welsh mountains.

CLASS

PERGULIA. Calyx of five leaves, concave, spreading. Petals five, oval, concave, spreading, larger than the calyx, imbricate, white, covered with glandular down. September.

C L A S S XI.

DODECANDRIA.

Stamina 12 to 20.

I. MONOGYNIA.

Pistillum I.

ASARUM. Calyx quadrifid, coloured above the germen. Corolla o. Stamina and pistilla half the length of the calyx. Stigma setate. Capsule coriaceous, crowned. Seeds several.

1. Europæum. *Asarabacca*. Leaves reniform, an inch in diameter, single, on long foot-stalks, two together. Flowers single, purplish, on short pedicles, from the root. May. In woods in Lancashire, &c.

LITHRUM. Calyx cylindrical, with twelve teeth. Petals six, inserted in the calyx. Capsule bilocular. Seeds many.

1. Salicaria. *Purple-spiked Eossetrice*, or *Willow-herb*. Stem square, firm, branched, two feet high. Leaves long, pointed, two or three at each joint. Flowers in whirls, on long spikes. July. On the banks of rivers.

II. DIGYNIA.

Pistilla 2.

AGRIMONIA. Calyx with five teeth, surrounded by an exterior calyx, Petals five. Seeds two, in the bottom of the calyx.

1. *Eupatoria. Agrimony.* Stem erect, firm, hairy, about two feet high. Leaves pinnated, serrated, alternate. Flowers yellow, large, on a long, slender, terminal spike. Fruit rough. June. In fields and hedges.

III. TRIGYNIA.

Pistilla 3.

RESEDA. Calyx of one leaf, divided. Petals irregular, jagged, some of them trifid. Capsule unilocular, open between the styles.

1. *Lutea. Base Rocket.* Stalks numerous, slender, between one and two feet high. Leaves trifid; the lower pinnated. Flowers small, yellow, on spikes, terminal. Petals four or six. July. Annual. In fields, &c. on a chalky soil.
2. *Luteola. Wild Wood, or Dyers Weed.* Stalks several, simple, about three feet high. Leaves lance-shaped, intire, with a denticle on each side of the base. Flowers

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ers small, yellow, on long spikes. Calyx quadrifid. Petals three or five; the upper one in six segments, the side ones in three. Stamina near twenty. June. Annual. On waste ground frequent.

EUPHORBIA. Calyx of one leaf, bell-shaped, with four teeth. Corolla of four petals, alternate with the teeth of the calyx, thick, gibbous, truncated, their claws fixed in the margin of the calyx. Stamina jointed. Styles bifid. Capsule roundish, trilocular. Seeds single.

1. Peplis. *Small Purple Sea Spurge.* Stem branched, procumbent, purplish. Leaves purplish, obtuse, oval, intire. Flowers small, yellow, in the axæ of the leaves. June. Annual. On the Cornish coast.

* *Umbels trifid; partial umbels forked.*

1. Peplus. *Petty Spurge.* Stem much branched, eight or ten inches high. Leaves oval, intire, on pedicles. Flowers yellowish green. July. Annual. A common weed in gardens.

2. Exigua. *Dwarf Spurge.* Stalks branched, procumbent, three or four inches long. Leaves, narrow, erect; those immediately under the umbels are broader and longer. Flowers yellow, small. July. In corn-fields.

** *Umbels quinquifid; partial umbels forked.*

4. Segetalis. *Corn Spurge.* Stem numerous, erect. Leaves long, narrow, alternate; those under the partial umbels broad, pointed.

pointed. Flowers small, yellow, on the top of the stem, and on small branches. Petals horned. July, August. Annual. In corn-fields.

5. *Helioscopia*. *Sun Spurge*. Stem single, about a foot high, branched at the top. Leaves narrow at the base, broad and round at the end. Flowers greenish yellow, terminal. July. Annual. In kitchen-gardens frequent.

6. *Portlandica*. *Portland Spurge*. Stem somewhat woody, smooth, reddish, six or eight inches high. Leaves alternate, almost sessile, narrow, pointed, spreading. Involucella broad, pointed, concave. Flowers yellow; first and second male, petals obtuse; the rest hermaphrodite, petals horned. August. On the coast.

7. *Paralias*. *Sea Spurge*. Stem about half a yard high, intirely covered with oblong pointed leaves, imbricated. Flowers yellowish green, in bifid, subquinqifid umbels. Involucella oval. July, August. On the coast frequent.

8. *Verrucosa*. *Rough-fruited Spurge*. Leaves elliptical, somewhat hairy, and slightly serrated. Involucella heart-shaped. Capsules intirely covered with warts. August. In corn-fields.

9. *Plalyphylla*. *Broad-leaved Spurge*. Stem erect, smooth, a foot high. Leaves alternate, remote, lance-shaped, slightly serrated, sessile, the lower ones on short foot-stalks, and broader at the end. Petals yellow-

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yellowish green. Capsules covered with smaller warts than the last. Partial umbels bifid. Trifid umbels from the axæ of the leaves. July. In corn-fields, but rare.

*** *Umbels multifid.*

10. *Hyberna. Knotty-rooted Spurge.* Root tuberous. Stalks simple. Leaves numerous, short, intire. Umbels sexfid. Flowers yellowish. Capsules warty. July. In corn-fields.
11. *Amygdaloides. Wood Spurge.* Radical leaves long, obtuse, downy on the under-side, in a spreading tuft; the other leaves elliptical. Stalks three feet high, with slender branches, and flowers on long pedicles, from the axæ of the leaves. Involucella round, perfoliate. Petals lunated. April. In corn-fields, &c.
12. *Caracias. Red Spurge.* A shrub, four feet high, reddish. Leaves launce-shaped, reddish, downy on the under side. Umbels small, with numerous radii. General involucrum of many leaves. Involucella perfoliate, bifid. June. In woods, but rare.

IV. POLYGYNIA.

Styles several.

SEMPERVIVUM. Calyx in twelve segments. Corolla of twelve petals. Capsules twelve. Seeds several.

K 4

1. Tec-

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1. *Tectorum. Houfaleek.* Stalk about a foot high. Radical leaves thick, oval, pointed, fringed, spreading in a rose; those on the stem imbricated, membranous. Flowers pale red, sessile, on curved, terminal bunches. July. Perennial. On the tops of houses frequent,

CLASS

CLASS XII.

ICOSANDRIA.

Calyx of one leaf, concave. Corolla fixed by its claws to the inside of the Calyx. Stamina twenty or more.

I. MONOGYNIA.

Pistillum 1.

PRUNUS. Calyx quinquifid. Petals five, regular, roundish, concave, spreading, large. Fruit a *drupa*, containing a stone with prominent sutures.

- 1, Padus. *Wild Cluster Cherry, or Bird's Cherry.* A tall shrub. Leaves oblong, serrated, deciduous, with two glands on the under-side of the base. Flowers white, in large pendulous clusters. Fruit black. In woods and hedges in the mountainous parts of the north of England.
- 2, Cerasus. *Black Cherry.* A small tree. Leaves smooth, lance-shaped, conduplicate. Umbels sub-seffile. Stipulæ indented. Bractææ trifid. In woods and hedges.
- 3, Avium. *Common wild Cherry.* A tree. Leaves lance-shaped, downy beneath. Umbels seffile. Fruit red. April. In woods and hedges.
4. Infi-

4. *Infinitia*. *Black and White Bullace*. A spinous shrub. Leaves oval, pointed, downy beneath. Flowers from the axæ of the leaves, on pedicles, two together. Fruit red or white. April. In hedges frequent.

5. *Spinosa*. *Black Thorn, or Sloe*. A spinous shrub. Leaves lance-shaped, smooth. Flowers from the axæ of the leaves, on single pedicles. March, April. In hedges.

II. DIGYNIA:

Pistilla 2.

CRATÆGUS. Calyx quinquifid. Corolla of five petals, regular. Stamina about twenty. Berry, below the flower, fleshy, with two seeds.

1. *Aria*. *White Bean Tree*. A tree ten or fifteen feet high. Leaves oval, irregularly serrated, downy beneath. Flowers in umbels. Fruit red, sweet. May. In woods, &c. mountainous.

2. *Torminalis*. *Wild Service Tree*. About ten or twelve feet high. Leaves septangular, downy beneath, serrated. Flowers in umbels. Fruit brown, with white spots, downy. April. In woods and hedges.

3. *Oxyacantha*. *Hawthorn, or White Thorn*. A tall crooked shrub. Leaves smooth, numerous, irregularly divided and serrated. Flowers white, in a kind of

of umbels. May. In woods and hedges frequent.

III. TRIGYNIA.

Pistilla 3.

SORBUS. Calyx quinquifid. Corolla of five petals. Stamina twenty, inserted in the calyx. Berry below the flower, soft, containing three seeds.

1. *Ocuparia.* *Quicken-tree, or Mountain Ash.* A tree not very tall. Bark brown, smooth. Leaves smooth, pinnated; pinnæ about eight pair, with an odd one at the end, slightly serrated. Flowers white, in close umbels. Fruit red. May. In woods and hedges.

2. *Domestica.* *True Service Tree.* A large tree. Leaves pinnated, downy on the under-side. Flowers in umbels. Fruit yellowish brown, like a small pear. April, May. In the mountainous parts of Cornwall and Staffordshire.

IV. PENTAGYNIA.

Pistilla 5.

MESPILUS. Calyx quinquifid. Petals five. Berry below the flowers; seeds five.

1. *Germanica.* *Medlar.* A tree, not very tall. Leaves lance-shaped, somewhat oval, downy underneath, serrated at the apex,

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apex, on very short foot-stalks. Flowers white, terminal, single, sessile. Fruit brown. May. In hedges about Minchiville.

PYRUS. Calyx quinquifid. Petals five. Pomum below the flower, quinquelocular. Seeds several.

1. *Communis. Wild Pear Tree.* A tall spinous tree; branches erect. Leaves oblong, smooth, serrated. Fruit lengthened at the base. April. In woods and hedges.
2. *Malus. Crab Tree.* Branches diffuse. Leaves serrated, oval. Flowers on sessile umbels. Fruit round, hollow at the base. May. In woods and hedges.

SPIRÆA. Calyx quinquifid. Petals five. Capsules bivalve. Seeds few, small.

1. *Filipendula. Drop-wort.* Stem about two feet high, hollow, striated, naked. Leaves pinnated, serrated. Flowers reddish white, in bunches. July. In meadows, &c.
2. *Ulmaria. Meadow-Sweet.* Stem about four feet high, branched, striated. Leaves pinnated; terminal pinna large, lobed. Flowers white, in bunches, terminal. June, July. In wet meadows, and banks of rivers.

V. POLY-

V. POLYGYNIA.

Pistilla many.

ROSA. Calyx urn-fashioned, fleshy, quin-
quid; segments long, narrow. Petals
five, inserted in the neck of the calyx.
Stamina and pistilla very short. Seeds
numerous, downy, adhering to the in-
side of the calyx. Shrubs

1. *Eglanteria*. *Sweet Briar*, or *Eglantine*. Firm,
erect, spinous. Leaves roundish, gene-
rally five together, rusty on the under-
side, and clammy at the ends. Flowers
small, pale. The whole plant smells
like apples. May, June.
2. *Villosa*. *Apple-Rose*. Spinous. Leaves downy
on both sides, oval. Fruit spherical,
large, spinous. Flowers deep red. June.
3. *Spinosissima*. *Burnet Rose*. Stem firm but
low, much branched and very prickly.
Leaves pinnated. Foot-stalks spinous.
Flowers white. Fruit round and smooth.
June. On heaths, &c.
4. *Canina*. *Dog-Rose*, or *Common Briar*. Stem
eight or ten feet high, with hooked spines.
Leaves five or seven together, oval,
smooth. Flowers pale red, odoriferous.
Fruit large, smooth, oval, red. May,
June. In hedges.
5. *Alba*. *White Dog-Rose*. Differs from the
last in being a less shrub, with rounder
fruit, and white flowers.

RUBUS.

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RUBUS. Calyx quinquifid. Petals five, inserted in the calyx. Fruit a berry, composed of many small ones, with a single seed in each.

1. *Idæus.* *Raspberry Bush.* Stem slender, erect, about six feet high. Leaves somewhat oval, pointed, white and downy on the under-side, pinnated, five or three. Flowers white. Fruit red. May, June. In woods, &c.
2. *Cæsius.* *Small Bramble, or Dewberry-Bush.* Stem slender, short, prickly, procumbent. Leaves ternate. Flowers white, double. Fruit bluish. June, July. In woods and hedges.
3. *Fruticosus.* *Common Bramble.* Stem long, creeping, spinous. Leaves three or five, on a pedicle, ferrated. Flowers white. Fruit black. May—October. In woods and hedges.
4. *Saxatilis.* *Stone Bramble.* Stem herbaceous, slender, short, creeping. Leaves ternate, not downy, notched round the edges, and shaped like those of the elm. Flowers on short pedicles. Fruit fine red, composed of few but larger berries. June. On the sides of mountains in the northern counties.

FRAGARIA. Calyx with ten segments. Petals five. Receptacle of the seed a succulent berry, deciduous. Seeds numerous, pointed. Leaves ternate.

1. *Vesca.* *Strawberry.* Stem short, hairy, erect. Leaves broad, ferrated, whitish beneath.
Ten-

Tendrils creeping. Flowers six or eight, large, white. May, June. In woods, &c.

2. *Sterilis*. *Barren Strawberry*. Stem weak, creeping. Flowers single, white. Fruit downy, harsh, scarce and succulent. April. In barren pastures frequent.

POTENTILLA. Calyx with ten segments. Petals five. Receptacle of the seed small, dry, permanent. Seeds numerous, roundish.

* *Leaves pinnated*.

1. *Fruticosa*. *Shrub Cinquefoil*. Stem erect, woody, branched. Leaves five or seven on each foot-stalk, downy beneath. Flowers large, yellow. June. In Yorkshire.

2. *Anserina*. *Silver-weed*, or *Wild Tansey*. Stem creeping. Leaves serrated, silver-white beneath. Flowers yellow, on pedicles. June, July.

3. *Rupestris*. *Bastard Cinquefoil*. Stem erect, two feet high, branched. Leaves alternate; pinnæ oval, indented, five or seven, hairy. Flowers numerous, large, white. July. In Wales.

* *Leaves 5-fingered*.

4. *Argentea*. *Silver-leaved Cinquefoil*. Stalks numerous, erect, hairy, six or eight inches high. Leaves serrated, silver-white beneath. Flowers yellow. June. In pastures, &c.

5. *Verna*. *Spring Cinquefoil*. Stem declining. Radical leaves 5-fingered, serrated, those above

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above ternate. Flowers yellow. May, June. In barren pastures, &c.

6. *Opaca*. *Small rough Cinquefoil*. Stalks weak, branched, procumbent, hairy. Radical leaves 5-fingered, serrated, hairy. Flowers large, yellow. June. In Yorkshire, but rare.

7. *Reptans*. *Common Cinquefoil*. Stem slender, creeping. Leaves oblong, serrated. Flowers yellow, single. June.

8. *Alba*. *White Cinquefoil*. Stem procumbent. Leaves serrated, and hollowed at the apex. Flowers single, white. Receptacle hairy. August. In Wales.

TORMENTILLA. Calyx octifid. Petals four. Stamina not more than sixteen. Seeds six or eight, oblong, naked, fixed to a small dry receptacle.

1. *Erecta*. *Tormentil, or Septfoil*. Stem erect, branched, from three or four inches to a foot high. Leaves sessile, generally in seven lobes, deeply divided, and serrated. Flowers small, yellow; petals heart-shaped. June. In pastures frequent.

2. *Reptans*. *Creeping Tormentil*. Stalks reddish, slender, creeping. Leaves sharply serrated, on short foot-stalks, and 5-lobed. Flowers numerous, yellow. July. In woods and barren pastures. &c.

GEUM. Calyx with ten segments. Petals five, rounded. Receptacle of the seed oblong, hairy. Seeds numerous, with each a long jointed style.

1. *Urba-*

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1. *Urbanum. Common Avens, or Herb-bennet.* Stem erect, branched, two or three feet high. Leaves pinnated; the side pinnae gradually increasing in size as they approach that at the extremity, which is much larger, rounded, and acutely serrated. Flowers yellow, terminal, erect. Fruit roundish, hairy, the size of a nut. June, July. In woods and hedges.

2. *Rivale. Water Avens.* Stem about a foot high, branched at the top. Leaves lyrate like the last, but the extreme pinnae trilobed. Flowers numerous, purple, drooping; petals rolled up cylindrically. Fruit oblong. Style of the seed downy. July. On the northern and Welch mountains.

DRYAS. Calyx with five or eight segments, linear, obtuse. Petals five or eight, notched, spreading. Seeds numerous, with each a long downy style.

1. *Pentapetala. Cinquefoil Avens.* Stem about a foot high. Leaves pinnated. Flowers yellow; petals five. In Scotland.

2. *Octopetala. Mountain Avens.* Stem somewhat woody, about six inches long. Leaves simple, oval, harsh, serrated, hoary beneath. Flowers single, large, white, on hairy pedicles. July. On the mountains in Ireland.

COMARUM. Calyx in ten segments, coloured, large. Petals five, much shorter than the calyx, pointed. Sta-

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mina about twenty. Receptacle spongy, permanent. Seeds numerous, pointed, covering the receptacle.

r. Palustre. *Purple Marsh Cinquefoil.* Stem partly procumbent; the part which is erect, is about one foot and a half high. Leaves pinnated. Flowers single, terminal, large, purple; petals small. June. On bogs, &c.

Stem about a foot high, branched at the top. Leaves lyrate like the leaf, but the extreme pinnae trilobed. Flowers numerous, purple, drooping; petals rolled up cylindrically. Fruit oblong. Style of the seed downy. July. On the northern and Welch mountains.

DRYAS. Calyx with five or eight segments, linear, obtuse. Petals five or eight, notched, spreading. Seeds numerous, with each a long downy style.

Stem about a foot high. Leaves pinnated. Flowers yellow; petals five. In Scotland.

Stem about six inches long. Leaves simple, oval, serrated, hoary beneath. Flowers single, large, white, on hairy pedicels. July. On the mountains in Ireland.

CLASS

COMARUM. Calyx in ten segments, coloured, linear. Petals five, mucous. There are the calyx pointed. June.

CLASS XIII.

POLYANDRIA.

Stamina numerous; but wanting the other characteristics of the preceding Class.

I. MONOGYNIA.

Pistillum 1.

NYMPHÆA. Calyx of four or five leaves, large. Petals many. Style o. Berry hard, multilocular, truncated, filled with pulp.

1. *Lutea. Yellow Water Lilly.* Root very thick and long. Leaves large, heart-shaped, single, on long foot-stalks, floating on the surface of the water. Flowers yellow, single, on long pedicles, floating; calyx of five leaves. August. In slow rivers, pools, &c.

2. *Alba. White Water Lilly.* Flowers white; calyx of four leaves: otherwise much like the last. July. In rivers, ponds, &c.

* *Petals 4.*

ACTÆA. Calyx of four leaves, deciduous. Petals pointed at each end, deciduous. Style o. Berry unilocular, smooth. Seeds semilunar, in a double row.

L 2

1. *Spicata.*

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1. *Spicata. Herb Christopher, or Bane-berries.*

Stem about two feet high, slender, jointed, striated. Leaves large, glossy, ternate, and subdivided, like those of the umbelliferous plants. Flowers small, white, in oval clusters. Berries small, black. May, June. In woods.

CHELIDONIUM. Calyx of two leaves, obtuse, deciduous. Petals large, roundish, spreading. Stamina about thirty. Style 0; stigma bifid. Fruit a cylindrical pod. Seeds many.

1. *Majus. Celandine.* Stem weak, about two

feet high. Leaves pinnated, subdivided, lobed, indented. Flowers, small, on separate pedicles, in umbels. The whole plant contains a yellow juice. May, June. On waste ground.

2. *Glaucium. Yellow horned Poppy.* Stem about

two feet high. Leaves downy, sessile, embracing the stem, blue-green; those from the root pinnated, the rest lobed. Flowers yellow, large, single, terminal. July. Annual. On the coast.

3. *Hybridum. Violet horned Poppy.* Stem about

a foot high, smooth, erect. Leaves pinnatifid; segments very narrow. Flowers single, large, terminal, purple. Pods trivalve. August. Annual. In corn-fields.

PAPAYER. Calyx of two leaves, obtuse, deciduous. Petals large, roundish, spreading, alternately less. Style 0; stigma

stigma radiated. Capsule unilocular.

Seeds numerous, small.

1. *Hybridum*. *Round rough-headed Poppy*. Stalks above a foot high, hairy, branched, with many leaves, which are triply pinnatifid. Flowers, not large, red. June, July. Annual. In corn-fields, but rare.

2. *Argemone*. *Long rough-headed Poppy*. Differs from the last chiefly in the shape of the pericarpium, or seed-vessel, which is long, angular, and thickest towards the top. June. Annual. In corn-fields.

3. *Rhoeas*. *Round smooth-headed, or Corn Poppy*. Stem hairy, branched. Leaves pinnatifid, jagged. Flowers red. Capsule round, smooth, small. June. Annual. In corn-fields.

4. *Dubium*. *Long smooth-headed Poppy*. Differs from the last, chiefly in the shape of the capsule.

5. *Somniferum*. *Wild Poppy*. Stalk erect, smooth, branched, three or four feet high. Leaves bluish, smooth, simple, broad, irregularly indented, sessile, embracing the stem. Flowers white, with a purplish tinge. Capsule large, round, smooth. Seeds white. July. Annual. In waste ground.

6. *Cambricum*. *Yellow Poppy*. Stem smooth, branched. Leaves pinnated, jagged. Flowers yellow. Capsule oblong, smooth. Stigmata five to six. June—August. Perennial. In Wales; Westmoreland, &c.

** *Petals five.*

TILIA. Calyx of five segments, coloured, deciduous. Petals obtuse, notched. Stamina thirty or more. Berry round, dry, quinquelocular, quinquevalve, opening at the base. Seeds single.

1. *Europæa. Lime-tree.* A large tall tree. Leaves heart-shaped, serrated. Flowers white, odoriferous. July. In woods and hedges.

CISTUS. Calyx of five leaves, two of which are less than the rest. Petals roundish, large, spreading. Capsule.

1. *Marifolius. Hoary Dwarf Cistus.* Stems woody, numerous, three or four inches long, procumbent. Leaves opposite, oblong, pointed, hoary beneath. Flowers large, yellow, in clusters. July. In the north of England.

2. *Guttatus. Annual Cistus.* Stem herbaceous, about a foot high, branched at the top. Leaves opposite, lance-shaped, with three nerves. Flowers pale yellow, with a red spot on each petal. Stipulæ 0. June. In sandy meadows.

* *With Stipulæ.*

3. *Surrejanus. Narrow-leaved Cistus.* Stalks numerous, woody, procumbent. Leaves opposite, oblong, somewhat hairy. Flowers yellow, with narrow petals. July. On heaths, particularly in Surry.

4. *Heli-*

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4. *Helianthemum*. *Dwarf Cistus*, or *little Sun-flower*. Stems numerous, woody, procumbent, about a foot long. Leaves opposite, oblong, curled, slightly hairy. Stipulæ quatern. Flowers yellow, single, three or four in a loose cluster; petals intire. July. Particularly on chalk hills.

5. *Polifolius*. *Mountain Dwarf Cistus*. Stems numerous, woody, procumbent. Leaves very numerous, thick, oblong, sessile, downy. Flowers white. July. On Brent-downs, Somerseth.

III. TRIGYNIA.

Pistilla 3.

DELPHINIUM. Calyx 0. Petals five, unequal. Nectarium bifid, involved in the tube of the horned petal.

1. *Consolida*. *Wild Larkspur*. Stem about six inches long, subdivided. Leaves in narrow segments. Flowers in loose spikes, blue. Capsule one. June. Annual. In corn-fields.

V. PENTAGYNIA.

Pistilla 5.

AQUILEGIA. Calyx 0. Petals five, equal. Nectaria five, between the petals, with each a posterior horn or tail, obtuse. Stamina thirty or more. Capsules five; univalve. Seeds several.

L 4

1. Vul-

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1. *Vulgaris. Columbine.* Stem erect, branched at the top. Leaves bluish, subdivided, lobed, on foot-stalks. Flowers large, blue, pendulous. Nectaria curved.

June. In woods, &c. *in several places by side of the turnpike near the bridge in point of view*

2. *Alpina. Mountain Columbine.* Leaves biternate, jagged. Flowers blue, large; petal of the nectarium long, lance-shaped; horn short, straight. June. In mountainous woods in Westmoreland, &c.

VI. HEXAGYNIA.

Pistilla 6.

STRATIOTES. Spatha of two leaves, Perianthium trifid. Petals three. Berry sexlocular, below the flower.

1. *Aloides. Water Aloe, or Fresh-water Soldier.* Root consists of long fibres tufted at the ends. Leaves thick, triangular, pointed, prickly at the edges. Flowers white, floating on the water. June. Slow rivers, fens, &c.

VII. POLYGYNIA.

Pistilla many.

ANEMONE. Calyx 0. Petals in a double or triple order, three in each. Seeds numerous.

1. *Pulsatilla. Pasque Flower.* Stem hollow, hairy, eight or ten inches high, with a jagged

jagged involucre at some distance below the flower. Leaves bipinnated. Flowers large, purple, single. April. In high ground.

2. *Nemorosa*. *Wood Anemone*. Stem about seven inches high, with three leaves, in many segments, at some distance from the flower. Radical leaves on long footstalks, and divided like those above. Flower single, white, frequently with a red tinge. April. In woods, &c.

3. *Apennina*. *Mountain Wood Anemone*. Differs from the last chiefly in the petals being purple, numerous, and lance-shaped. April. In woods, &c.

CLEMATIS. Calyx 0. Petals four. Receptacle round, small. Seeds several, with each a style.

1. *Vitalba*. *Great Wild Climber*, or *Traveller's Joy*. Stem woody, climbing, and twisting round every thing in its way. Leaves opposite, pinnated; pinnae oval, serrated. Flowers white, small, in tufts, fragrant. July. In hedges.

THALICTRUM. Calyx 0. Petals four. Seeds several, without style.

1. *Alpinum*. *Mountain Meadow Rue*. Stem weak, simple, naked towards the top, about a foot high. Leaves tridentate, acute, glossy, dark green above. Flowers drooping, terminal, deep red, in loose clusters. June. In moist ground on moun-

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mountains. Stamina twelve. Pistilla eight.

2. Minus. *Less Meadow Rue*. Stem leafy, bluish, simple, about a foot high, erect. Leaves sexpartite, large, the ends tinged with purple. Flowers yellowish white, in loose pendulous clusters. July, August. On moist mountains, &c.

3. Flavum. *Meadow Rue*. Stem leafy, erect, furrowed, purplish, about three feet high. Root yellow. Leaves large, dark, bluish green above, subdivided, notched. Flowers small, whitish, in short spikes, or clusters. June. In moist ground, banks of rivers, &c.

ADONIS. Calyx of five leaves, hollow, obtuse, deciduous. Petals, five to fifteen, oblong, obtuse, glossy. Nectarium o. Stamina very short. Styles o. Seeds numerous, naked.

1. Autumnalis. *Adonis, Pheasant's Eye, red Maithes, or red Mordico*. Stem firm, erect, branched, about one and a half foot high. Leaves in narrow segments, on foot-stalks. Flowers scarlet; petals eight. July, August. Annual. In corn-fields.

RANUNCULUS, Calyx of five leaves (except sp. 4). Petals five (except sp. 4); nectarium a cavity or pore in each petal, above the claw. Styles o. Seeds several. The nectarium is the essential characteristic of this genus, the other parts of fructification being uncertain.

* *Leaves*

* *Leaves simple.*

1. *Flammula. Less Spearwort.* Stalks leaning. Leaves lance-shaped, broad, on foot-stalks. Flowers deep yellow. June—September. Fens, &c. frequent.
2. *Lingua.* Stalks three feet high, erect, hollow, branched. Leaves fleshy, thick, smooth, pointed, a foot long, and about an inch broad. Flowers large, terminal, deep yellow. May, June. In wet pastures, &c.
3. *Ficaria. Pilewort, or Less Celandine.* Calyx generally of three leaves. Petals lance-shaped, commonly eight. Nectarium shut by a scale. Stamina twenty. Stalks short, procumbent. Leaves heart-shaped, angulated, on foot-stalks. Flowers yellow. April. In meadows, &c. frequent.

* *Leaves divided.*

4. *Auricomus. Sweet Wood Crowfoot, or Goldilocks.* Radical leaves reniform, notched, divided; those on the stem deeply divided into narrow segments. Flowers numerous, yellow. April. In woods and hedges frequent.
5. *Sceleratus. Round-leaved Water Crowfoot.* Stalks about one foot and a half high, branched. Lower leaves divided into broad segments, the upper into narrow. Leaves smooth. Flowers small, yellow. May, June. In water frequent.
6. *Bulbosus. Bulbose Crowfoot, or Butter Cups.* Stalks erect. Leaves composite. Pedicels of the flowers grooved. Calyx curved

curved downwards. Root a round bulb. May. In meadows frequent.

7. *Repens. Creeping Crowfoot.* Stalks creeping. Leaves dead green, and often spotted, composite, ternate, somewhat hairy. Flowers numerous. Calyx spreading, and pedicles grooved. May. In meadows, &c. frequent.

8. *Acris. Upright Meadow Crowfoot.* Stalks erect. Leaves pentangular, tripartite, multifid, acrid. Flowers numerous, on equal branches. Calyx spreading; pedicles cylindrical. June, July. In meadows, &c. frequent.

9. *Arvensis. Corn Crowfoot.* Stem erect, about one and a half foot high. Upper leaves decomposite; segments narrow. Flowers small, pale, yellow. Stamina about sixteen. Seeds prickly, about eight. June. Annual. In corn-fields.

10. *Parviflorus. Small-flowered Crowfoot.* Stem weak, prostrate, diffuse, hairy. Leaves simple, deeply divided, acute, hairy. Flowers very small. May. Annual. In meadows, corn-fields, &c.

11. *Hederaceus. Ivy-leaved Water Crowfoot.* Stalks diffuse, weak, jointed, creeping. Leaves roundish, trilobed, intire, with, generally, a black spot in the center, floating. Flowers white, or pale yellow. May. In slow rivers, ditches, &c.

12. *Aquaticus. Varicous-leaved Water Crowfoot.* Stem branched, jointed, thick, weak. Leaves are under water, divided into very

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very narrow segments; the \odot on the surface roundish, trilobed, notched, on foot-stalks. Flowers large, single, white, on pedicles from the same vagina with the leaf. April, May. In ditches, &c.

TROLLIUS. Calyx \circ . Petals about fourteen. Nectaria nine, linear, perforated at the base. Styles \circ . Pods numerous, in a round head. Seeds single.

1. Europæus. *Globe-flower, or Locker-gowlons.* Stalk simple, taper, about two feet high. Leaves lobed, divided; segments acute. Flowers single, terminal, large, globose, yellow. Seeds black, glossy.

HELLEBORUS. Calyx \circ . Petals five, oval, equal, spreading. Nectaria several, in a circle, tubular, with two lips. Capsule compressed, double-ridged. Seeds several.

1. Viridis. *Small Wild black Hellebore.* Stalks several, leafy, erect, about a foot high. Leaves fingered. Flowers terminal, numerous, large, green. April. In woods, &c. but rare.

2. Foetidus. *Great Bastard Black Hellebore, Bears-foot, or Setterwort.* Stem about three feet high, leafy. Leaves trilobed; lateral lobes quadrifid, dry, glossy, serrated, narrow, pointed. Flowers numerous, on pedicles, in a kind of umbel. March. In fields and hedges frequent.

CAL-

CALTHA. Calyx o. Petals five, oval, spreading, large, deciduous. Styles o. Nectaria o. Capsules several, short, pointed, double-ridged. Seeds several.

1. *Palustris.* Marsh Marigold. Stalk erect, about two feet high. Leaves single, heart-shaped, notched round the edges; those from the root on long, thick foot-stalks. Flowers large, yellow. April. Banks of rivers, &c.

2. *Flammula.* Stalk erect, about two feet high. Leaves single, heart-shaped, notched round the edges; those from the root on long, thick foot-stalks. Flowers large, yellow. April. Banks of rivers, &c.

3. *Alba.* Stalk erect, about two feet high. Leaves single, heart-shaped, notched round the edges; those from the root on long, thick foot-stalks. Flowers large, white. April. Banks of rivers, &c.

4. *Flammula.* Stalk erect, about two feet high. Leaves single, heart-shaped, notched round the edges; those from the root on long, thick foot-stalks. Flowers large, yellow. April. Banks of rivers, &c.

CLASS

5. *Flammula.* Stalk erect, about two feet high. Leaves single, heart-shaped, notched round the edges; those from the root on long, thick foot-stalks. Flowers large, yellow. April. Banks of rivers, &c.

C L A S S XIV

DIDYNAMIA.

Stamina four, two long, and two short.
Pistillum one. Corolla monopetalous,
irregular, generally ringent.

I. GYMNOSPERMIA.

Seeds four, naked. Stem square. Leaves opposite.

* *Calyx quinquefid.*

AJUGA. Corolla ringent; upper lip
small, erect, bifid; under lip large,
trifid, middle segment large. Stamina
longer than the upper lip. Stigmata
two.

1. *Pyramidalis.* *Mountain Bugle*, or *Sicklewort*.
Stalks slender, erect, square, hairy, sim-
ple, a foot, or more, high. Leaves op-
posite, narrow at the base, deeply in-
dented. Flowers blue, or red, or white,
in spikes. June. In Wales, &c.

2. *Reptans.* *Bugle*. Stem single, simple, square,
about eight inches high. Shoots creep-
ing. Leaves opposite, oval, somewhat
hairy, notched. Flowers blue, red, or
white, in long leafy spikes. May. In
meadows, and on hills.

TEU-

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TEUCRIUM. Corolla ringent; upper lip erect, acute, deeply divided, segments distant from each other; under lip trifid. Stamina prominent, between the segments of the upper lip. Stigmata two.

1. *Chamæpitis. Ground Pine.* Stem diffuse, covered with leaves, about five or six inches high. Leaves narrow, trifid, entire. Flowers sessile, small, yellow, in the axæ of the leaves. June, July. Annual. Corn-fields, &c.

2. *Scorodonia. Wood Sage.* Stem erect, square, about two feet high. Leaves opposite, heart-shaped, serrated, on foot-stalks. Flowers greenish white, in unilateral spikes. July. Woods, heaths, &c.

3. *Scordium. Water Germander.* Stalks diffuse, weak, square, hairy. Leaves opposite, sessile, oblong, serrated. Flowers red, two together, in the axæ of the leaves. August. On wet ground.

4. *Chamædris. Germander.* Stalks procumbent, square. Leaves opposite, indented, notched, on foot-stalks. Flowers red, three together, in the axæ of the leaves. May, June. In the ruins of Winchelsea castle, &c.

NEPETA. Middle segment of the under lip of the corolla notched. Palate heart-shaped. Stamina approximate. Stigma bifid.

1. *Cataria. Cat Mint, or Nap.* Stalks firm, erect, square, branched, hoary, near three

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three feet high. Leaves broad, heart-shaped, hoary, opposite, serrated, on foot-stalks. Flowers purplish white, in longish clusters, terminal. July. In hedges.

MENTHA. Corolla quadrifid, nearly equal, broader segment notched. Stamina erect, distant. Stem square. Leaves opposite.

1. Sylvestris. *Long-leaved Horse Mint*. Stem firm, erect, branched. Leaves sessile, hoary, serrated. Flowers reddish white, in close spikes, terminal. August. On wet ground.
2. Viridis. *Spear Mint*. Stem erect, about two feet high. Leaves smooth, sessile, lance-shaped, serrated, fresh green. Flowers small, red, in long interrupted spikes. August. On the banks of rivers, in Essex, Kent, &c.
3. Rotundifolia. *Round-leaved Horse Mint*. Stem erect, about two feet high. Leaves sessile, roundish, wrinkled, notched. Flowers red, in oblong spikes, terminal. On wet ground, but rare.
4. Aquatica. *Water Mint*. Stem erect, about two feet high. Leaves oval, pointed, serrated, on foot-stalks. Flowers pale red, in round spikes, terminal. July. Banks of rivers, &c.
5. Piperita. *Pepper Mint*. Stem erect, two or three feet high, but little branched. Leaves ovato-oblong, serrated, on short foot-stalks. Flowers red, in short, thick,

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thick spikes, terminal. August. Banks of rivulets, &c.

6. *Sativa. Curled Mint.* Stalks numerous, chiefly procumbent, about a foot long. Leaves oval, serrated, often curled at the edges. Flowers purple, in whirls, at the joints. Stamina longer than the corolla. August. Banks of rivers, &c.

7. *Gentilis. Red Mint.* Stem erect, about two feet high. Leaves oval, acute, serrated, often red, on short foot-stalks. Flowers pale red, in whirls, with the upper leaves. Stamina shorter than the corolla; under segment acute. August. On wet ground.

8. *Arvensis. Corn Mint.* Stalks procumbent, diffuse, about a foot long, hairy. Leaves oval, acute, serrated, on short foot-stalks. Flowers pale red, in whirls, at the joints. Stamina the length of the corolla; under segment obtuse.

9. *Exigua. Smooth Mint.* Stalks procumbent, about seven inches long, smooth. Leaves small, smooth, oblong, entire, on short foot-stalks. Flowers purplish, in whirls. August. Banks of rivulets, &c.

10. *Pulegium. Pennyroyal.* Stalks numerous, weak, procumbent, about one foot and half long, subcylindrical, creeping. Leaves oval, obtuse, slightly notched round the edges. Flowers purplish, in thick whirls. August, September. On wet ground.

GLECOMA. Antheræ in pairs, cruciform. Corolla ringent. Stigma bifid.
1. Hede-

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Leaves opposite, narrow, serrated.
Flowers red, in distant whirls. July,
August. Annual. In corn-fields, &c.

2. Tetrahit. *Nettle-hemp*, or *Hemp-leaved Dead Nettle*. Stem firm, erect, square, branched, hairy, swollen below the joints. Leaves oblong, pointed, serrated, harsh, nervous. Flowers large, white, or purple and yellow, in thick whirls. Calyx spinous, and much less than the corolla. August. Corn-fields, &c.

3. Galeobdolon. *Yellow Nettle-hemp*. Stalks leaning, square. Leaves oval, serrated, acute. Flowers yellow, six in each whirl; involucre of four leaves. May, Perennial. In woods, hedges, &c.

BETONICA. Calyx bearded. Corolla with the upper lip roundish, intire, plane, erect; under lip trisid; tube filiform. Stamina no longer than the mouth.

1. *Officinalis*. *Wood Betony*. Stalks numerous, simple, erect, square, one foot and a half high. Radical leaves numerous, long, obtuse, on foot-stalks; upper leaves sessile, heart-shaped, hairy. Flowers purple, in half-whirls, forming a kind of spike. Middle segment of the corolla notched. July, August. Woods, &c.

STACHYS. Calyx pungent. Upper lip of the corolla arched; lower lip large, reflex, notched. Stamina, after shedding the farina, bent towards the sides.

1. *Sylva-*

1. *Sylvatica. Hedge-nettle.* Stem erect, square, branched, hairy, about three feet high. Leaves hairy, heart-shaped, soft, on long foot-stalks. Flowers deep purple, with white spots, six or eight in a whirl, forming spikes, with intermediate small leaves. July, August. In woods, hedges, &c.

2. *Palustris. Clown's Allheal.* Stem erect, branched at the bottom, two or three feet high. Leaves sessile, in part surrounding the stem, narrow, pointed, indented, soft, hairy. Flowers purple, in whirls of six or more, forming a spike, with intermediate small leaves. August. Banks of rivers, &c.

3. *Germanica. Base Horehound.* Stem erect, about two feet high, downy. Leaves thick, wrinkled, downy, white, indented. Flowers numerous, in whirls, white, purplish within. July. In hedges, &c.

in the road to Grantham a little beyond Colerworth. Phil. Trans. abt. vol. 6. p. 2 pa. 3

BALLOTA. Calyx cup-fashioned, pentangular, quinque-dentate, spinous, with ten striæ. Upper lip of the corolla concave, oval, notched.

1. *Nigra. Sinking Horehound.* Stalks erect, square, about three feet high. Leaves dark green, heart-shaped, serrated, on foot-stalks. Flowers purplish, in whirls, in the axæ of the leaves. July. On waste ground.

MARRUBIUM. Calyx funnel-shaped, rigid, with ten striæ, and ten teeth al-

ternately less. Upper lip of the corolla erect, bifid, linear; under lip reflex.

1. Vulgare. *White Horsehound*. Stalks several, firm, erect, branched, one foot and a half high. Leaves roundish, pointed, indented, woolly, meally. Flowers white, in thick whirls, in the axæ of the leaves; teeth of the calyx hooked. July. On waste ground, &c.

LEONURUS. Calyx tubular, pentagonal, quinque-dentate, unequal. Upper lip of the corolla concave, semicylindrical, intire, downy; under lip reflex; antheræ sprinkled with minute glossy glandules.

1. Cardiaca. *Motherwort*. Stalk erect, about four feet high, with many long upright branches. Leaves on foot-stalks, divided into three principal lobes, serrated. Flowers purplish, in thick divided whirls. July. High roads, &c.

** *Calyx bilabiate*.

CLINOPODIUM. Involucrum of many narrow leaves, like hairs, beneath each whirl. Upper lip of the calyx trifid, acute, reflex; under lip bifid. Stigma simple, acute, compressed.

1. Vulgare. *Great Wild Basil*. Stem erect, hairy, about two feet high. Leaves on foot-stalks, hairy, oval, pointed. Flowers purple, in thick whirls, at the joints. July. Hedges, &c.

ORIGA-

ORIGANUM. Involucrum a square imbricated cone, collecting the calyces, which are various. Corolla ringent.

1. Vulgare. *Wild Marjoram*. Stalks erect, about two feet high. Leaves on short foot-stalks, oval, pointed, dark green. Spikes roundish, purplish, in irregular panicles; bractæ oval, longer than the calyx. July. Hedges, &c.
2. Onites. *Pot-marjoram*. Spikes oblong, aggregate, hairy. Leaves heart-shaped, downy. Stalks numerous, diffuse, about a foot high. Flowers reddish white. August. In dry pastures.

THYMUS. Mouth of the calyx closed with hairs.

1. Serpyllum. *Mother of Thyme, Lemon Thyme, Hoary Thyme*. Stalks branched, procumbent, diffuse. Leaves obtuse, hairy at the base. Flowers pale red, in round heads, terminal. July, August. On hills, frequent.
2. Acinos. *Wild Basil*. Stalks erect, branched. Leaves pointed, serrated. Flowers purple, in whirls, on single foot-stalks. July, August. On hills, frequent.

MELISSA. Calyx angular, striated; upper lip tridentate, reflex. Upper lip of the corolla erect, arched, notched.

1. Calamintha. *Common Calamint*. Stem erect, much branched, about two feet high. Leaves oval, pointed, serrated. Flowers large, bluish white, on forked pedicels.

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cles as long as the leaves, forming a kind of spicate panicle. August. Corn-fields, &c.

2. *Nepeta*. *Field Calamint*. Stem reclined. Leaves oval, obtuse, spotted. Flowers purplish white, on forked pedicles longer than the leaf. August. High-roads, fields, &c.

MELITTIS. Calyx campanulate, much wider than the tube of the corolla, plane, erect; middle segment of the under lip notched. Antheræ crossed.

1. *Melissophyllum*. *Bastard Baum*. Stalks erect, square, hairy, pithy, a foot and half high. Leaves oval, pointed, hairy, scalloped, dark green. Flowers on single pedicles, six in each whirl, red, with purple spots, or white, with red spots. June. Woods, hedges, &c. West of England. Pembroke-shire, &c.

SCUTELLARIA. Calyx short, tubulated, mouth intire, after flowering closed by a cover, so as to resemble a helmet.

1. *Galericulata*. *Hooded Willow-herb*. Stalks weak, branched, above a foot high. Leaves heart-shaped, narrow, pointed, on short foot-stalks, scalloped. Flowers blue, in pairs, on pedicles from the axæ of the leaves, pendulous. August. Banks of rivers, &c.
2. *Minor*. *Less hooded Willow-herb*. Stalks about eight inches high. Leaves heart-shaped, oval. Flowers purple. July, August. Fens, &c.

PRU-

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PRUNELLA. Stamina forked, with antheræ on one branch only.

1. **Vulgaris. Self-heal.** Stem erect, about eight or ten inches high. Leaves, on foot-stalks, ovato-oblong, slightly indented, and somewhat hairy; bractæ heart-shaped, opposite, fringed. Flowers purplish, or white, in dense spikes, terminal. August. Meadows and pastures.

II. ANGIOSPERMIA.

Seeds in a Capsule.

OROBANCHE. Calyx bifid. Corolla ringent. Capsule ovato-oblong, pointed, unilocular, bivalve. Seeds small, numerous; receptacles four, linear, lateral.

1. **Major. Broom Rape.** Root an imbricated bulb. Stem simple, downy, brown, thick, one to two feet high, with membranes instead of leaves. Flowers in spikes, yellow-purple, terminal. May—July. Barren pastures, &c.

2. **Ramosa. Branched Broom Rape.** Stem branched, about eight inches high. Flowers pale red; corolla quinquefid. June. Corn-fields, but rare.

* *Calyx quadrifid.*

BARTSIA. Calyx of two lobes, notched, coloured. Corolla ringent, less coloured than the calyx; upper lip erect, long; under lip, trifid, reflex, small. Capsule

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Capsule bilocular, oval, compressed, bivalve, pointed.

1. *Viscosa*. *Marsh Eye-bright Cow-wheat*. Stem round, erect, branched, about a foot high. Leaves sessile, large, pointed, serrated, alternate above. Flowers yellow, single, lateral. August. On bogs, &c. in Cornwall.

2. *Alpina*. *Mountain Eye-bright Cow-wheat*. Stem not much branched, purplish, erect, eight or ten inches high. Leaves sessile, heart-shaped, obtusely serrated, short, obtuse, nervous, pale dead green. Flowers purple, in leafy spikes, on short pedicles. August. Banks of rivers, &c.

RHINANTHUS. Calyx inflated, compressed. Corolla ringent. Capsule obtuse, erect, compressed, bilocular, bivalve. Seeds several, compressed, covered with a loose membrane.

1. *Crista Galli*. *Yellow Rattle*, or *Cock's comb*. Stem round, branched towards the top, about a foot high. Leaves opposite, sessile, long, pointed, serrated. Flowers yellow, in long spikes, chiefly on one side; upper lip of the corolla compressed; calyx smooth. June, July. Meadows, &c.

EUPHRASIA. Calyx cylindrical; segments unequal. Corolla ringent. Capsule ovato-oblong, compressed, bilocular. Lower lobes of the inferior antheræ sharp-pointed.

1. *Officinalis*.

1. *Officinalis. Eyebright.* Stem branched, erect, about a foot high; branches opposite. Leaves opposite, sessile, oval, indented, deep green. Flowers white, in the axæ of the leaves. August, September. Meadows, &c.
2. *Odontites. Red Eyebright.* Stem erect, branched, above a foot high. Leaves narrow, serrated, pointed, sessile, opposite, often reddish. Flowers red, in the axæ of the leaves, generally on one side of the stem. August, September. Meadows, &c.

MELAMPYRUM. Calyx tubular. Corolla masked; tube curved; upper lip compressed; margin reflex. Capsule oblong, oblique, pointed, compressed, bilocular, bivalve. Seeds two, gibbous.

1. *Cristatum. Crested Cow-wheat.* Stem erect, branched, about a foot high. Leaves opposite, long, narrow, sessile. Flowers yellow, or white, or purple, or mixt, in quadrangular, compact, imbricated, obtuse, leafy, terminal spikes. July. In woods, &c.
2. *Arvense. Purple Cow-wheat.* Stem erect, firm, much branched, about one foot and a half high. Leaves sessile, opposite, long, lance-shaped, indented; those which grow among the flowers are short, broad, laciniated, purple. Flowers yellow and red-brown, in conical leafy spikes. July. In corn-fields.
3. *Pratense. Meadow Cow-wheat.* Leaves lance-shaped. Flowers white, closed, with two

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two yellow spots on the under lip, in pairs, in loose spikes, bending one way. July. In meadows, &c.

4. *Sylvaticum*. *Yellow Cow-wheat*. Stem weak, branched, about a foot high. Leaves on foot-stalks, lance-shaped; those above indented at the base. Flowers yellow, in pairs, bending one way, in loose spikes; corolla open. June—August. In woods.

LATHRÆA. Calyx campanulate. Corolla ringent; tube longer than the calyx; upper lip like a helmet, narrow, and hooked at the apex. Nectarium a depressed gland, at the base of the future of the germen. Capsule roundish, obtuse, with a point, unilocular, bivalve.

1. *Squamaria*. *Tooth-wort*. Root a divided imbricated bulb. Stalks several, about eight inches high, without leaves, but with membranes on the lower part. Flowers whitish purple, pendulous, in spikes, unilateral.

** *Calyx quinquefid.*

PEDICULARIS. Upper lip of the corolla like a helmet, compressed, erect, with a beak; under lip plane, trifid, middle segment least. Capsule ovato-conic, compressed, pointed, oblique, bilocular. Seeds several, truncated.

1. *Sylvatica*. *Common Red Rattle, or Coxcomb*. Stalks procumbent, eight or ten inches long, with many spreading branches. Leaves

Leaves pinnated. Flowers purple, in loose spikes; calyx oblong, angulated, smooth. May, June. In wet meadows, &c.

2. *Palustris*. *Marsh Red Rattle*. Stalks erect, branched, above a foot high. Leaves numerous, pinnated, deeply indented, often brown. Flowers purple, on pedicles, in the axæ of the leaves, forming a kind of loose spike; calyx compressed, somewhat bellying, a little hairy, dotted, and often bifid. June. Wet meadows, &c.

ANTIRRHINUM. Corolla ringent; upper lip bifid, reflex; under lip trifid; palate convex, closing the tube; nectarium extended from the base of the corolla in a kind of spur. Capsule bilocular.

* *Leaves angular.*

1. *Cymbalaria*. *Ivy-leaved Toadflax*. Stalks procumbent, creeping. Leaves alternate, heart-shaped, 5-lobed, smooth. Flowers single, on pedicles, from the axæ of the leaves, purple and yellow; calyx purple. Spur slender, curved, purple. June—October. On old walls near London frequent.

2. *Elatine*. *Sharp-pointed Fluellin*. Stalks procumbent, branched, about eight inches long. Lower leaves opposite; those above alternate, arrow-shaped, hairy, pale green. Flowers yellow and purple,

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ple, small. Spur long, small, pointed.
August. October. In corn-fields.

3. *Spurium. Round-leaved Fluellin.* Stalks procumbent, hairy, numerous. Lower leaves on foot-stalks, opposite; those above, alternate, hairy, oval, pointed. Flowers yellow and purple, with a long spur. August. In corn-fields.

** *Leaves opposite.*

4. *Repens. Creeping Toadflax.* Stalks procumbent. Leaves narrow, four together, in whirles. Flowers violet and yellow, with a long sharp spur, in long loose leafy spikes. August. In hedges in Cornwall.

5. *Arvense. Blue Corn Toadflax.* Stem erect. Leaves narrow, in whirles. Flowers blue, in spikes; calyx hairy, viscid. July, August. Corn-fields, &c.

*** *Leaves alternate.*

6. *Monspessulanum. Sweet-smelling Toadflax.* Stalks numerous, slender, erect. Leaves sessile, narrow, numerous, thick-set. Flowers blue, with a very short spur, in spikes, terminal. July, August. Corn-fields.

7. *Linaria. Common Yellow Toadflax.* Stem firm, erect, about two feet high. Leaves sessile, lance-shaped, blue-green, numerous. Flowers pale and deep yellow, with a long curved spur, in short spikes. July. Meadows, &c.

8. *Minus. Least Toadflax.* Stem much branched, diffuse. Leaves lance-shaped, obtuse,

tuse, viscid. Flowers small, with a very short spur, purple and yellowish white, in the axæ of the leaves.

**** *Corolla gaping, without spur. Leaves alternate, intire.*

9. *Majus. Great Snapdragon.* Stalks erect, near three feet high. Leaves lance-shaped, on foot-stalks. Flowers purple, large, in naked spikes; calyx small, segments rounded. June. On old walls, &c.

10. *Oronticum. Least Snapdragon.* Stalks erect, about a foot high. Leaves narrow. Flowers few, dispersed, purple, with a little yellow; calyx longer than the corolla. July, Aug. Corn-fields.

SCROPHULARIA. Segments of the calyx unequal. Corolla somewhat globose; tube wide, open; segments small; upper segments erect, with a bifid scale at their base; lateral segment spreading; lower segment reflex. Capsule roundish, pointed, bivalve, bilocular.

1. *Nodosa. Common Figwort.* Root tuberous. Stem square, about three feet high, brown. Leaves heart-shaped, on foot-stalks, indented, opposite. Flowers greenish purple, in bunches, terminal. July. In woods and hedges, &c.

2. *Aquatica. Water Figwort, or Betony.* Root fibrous. Stem erect, square, about four feet high. Leaves opposite, elliptical, pointed, slightly scalloped, on decurrent foot-stalks. Flowers purple, in loose, naked, spikes, terminal. July. In water.

3. *Scoro-*

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3. *Scorodonia*. *Baum-leaved Figwort*. Stem erect, square, about two feet high. Leaves opposite, doubly serrated. Flowers dusky purple, in composite bunches, terminal. Aug. Banks of rivulets, &c. in Cornwall, &c.

4. *Vernalis*. *Yellow Figwort*. Stalks square, hairy, brown, about two feet high. Leaves heart-shaped, roundish, hairy, indented, opposite. Flowers yellow, on single forked pedicles from the axæ of the leaves. April, May. In hedges in Surry, &c.

DIGITALIS. Calyx of five segments, permanent. Corolla campanulate, bellying on the backside, quadrifid; base cylindrical, narrow. Capsule oval, bilocular, bivalve.

1. *Purpurea*. *Foxglove*. Stem erect, firm, about four feet high. Leaves, on short footstalks, elliptical, pointed, downy, slightly serrated. Flowers purple, in long, terminal, unilateral spikes. July. In hedges, &c.

SIBTHORPIA. Calyx of five segments, spreading. Corolla of five segments, rounded, spreading, equal, the length of the calyx. Stamina in pairs, approximate. Capsule compressed, orbicular, bilocular; partition transverse.

1. *Europæa*. *Bastard Moneywort*. Stalks slender, creeping. Leaves small, round, notched round the edges. Flowers in the axæ of the leaves, pale red, small. August.

August. Banks of rivulets in Cornwall, &c.

LIMOSELLA. Calyx quinquefid, erect, acute, permanent. Corolla campanulate, quinquefid, nearly equal, acute, small. Stamina in pairs, approximate. Capsule unilocular, bivalve. Seeds many. Receptacle oval, large.

1. Aquatica. Bastard Plantain. Stalks slender, creeping. Leaves lance-shaped, on long foot-stalks, in tufts, on the ground. Flowers small, single, white, reddish within; stamens black. Aug. Sept. In pools of stagnant water.

C L A S S XV.

TETRADYNAMIA.

Calyx a perianthium of four leaves. Corolla of four leaves, equal, cruciform. Stamina six, two of which are shorter than the rest. Pistillum one; germen above the receptacle.

I. SILICULOSA.

Pericarpium small, round, with the apex of the dissepiment extended beyond the valves.

* *Apex of the pod intire.*

MYAGRUM. Calyx coloured, deciduous. Pod somewhat heart-shaped; valves concave; apex conic, rigid.

1. *Sativum. Gold of Pleasure.* Stem single, branched, about two feet high. Leaves oblong, sessile, arrow-shaped, serrated. Flowers in tufts, pale yellow. Seeds yellow, numerous. June. Annual. Among flax frequent.

VELLA. Pod globose, bilocular; dissepiment double the length of the valves, beyond which it is oval, erect.

1. *Annua. Cress Rocket.* Stem erect, branched, about a foot high. Leaves pinnatifid, segments narrow. Flowers pale yellow,

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low, in spikes, terminal. Pods pendulous. June. Annual. On high ground.

DRABA. Pod oblong-oval, compressed, bilocular; dissepiment parallel to the valves, without style.

1. *Verna.* *Common Whitlow Grass.* Stalks naked, about four inches high. Radical leaves oblong, obtuse, slightly indented, in a tuft on the ground. Flowers small, white, in loose panicles. April. On walls, &c.

2. *Muralis.* *Speedwell-leaved Whitlow Grass.* Stem branched, hairy, eight or ten inches high. Leaves broad, heart-shaped, hairy, embracing the stem, serrated. Flowers small, white, in long loose spikes. Pods elliptical, pointed at each end. Seeds many, yellow. May. In fissures of rocks, &c.

3. *Incana.* *Hoary Whitlow Grass.* Stem eight or ten inches high. Leaves numerous, hoary, indented. Flowers small, white. Pod oblong, twisted. May. In fissures of rocks, high pastures, &c. in the North of England.

* * *Apex of the pod notched.*

LEPIDIUM. Pod heart-shaped, compressed, containing several seeds. Valves acutely carinated contrary-wise.

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1. *Petroleum*. *Mountain Dittander*. Stem single, simple, about four inches high. Leaves pinnated, intire. Petals white, round, notched, less than the calyx. Calyx whitish, tipped with yellow. April; May. On St. Vincent's rock.

2. *Latifolium*. *Dittander*, or *Rappewort*. Stem firm, much branched, three or four feet high. Leaves on foot-stalks, ovato-lance-shaped, serrated. Flowers small, white, numerous, terminal. June, July. In meadows, &c. but rare.

3. *Rudrale*. *Narrow-leaved wild Cress*, or *Dittander*. Flower diandria, without petals. Radical leaves pinnated, dentated; the rest intire. June. On the coast.

THLASPI. Pod obcordate, containing several seeds. Valves navicular, marginato-carinated.

1. *Arvense*. *Treacle Mustard*, or *Peany-Cress*. Stalk firm, about a foot high, branched. Leaves oblong, smooth, scalloped, broadest towards the end. Flowers white. Pods round. June, July. In corn-fields, but rare.

2. *Hirtum*. *Perennial Mithridate Mustard*. Stem simple, hairy, about a foot high. Radical leaves oval, hairy; the rest downy, soft, arrow-shaped, in part embracing the stalk. Calyx white. Petals white, oval, intire. Pods roundish, hairy. July. On the mountains in Wales.

3. *Cam-*

3. *Campestre*. *Mithridate Mustard*, or *Bastard Cress*. Stem firm, erect, downy, branched towards the top. Radical leaves sinuated, on foot-stalks; the rest arrow-shaped, downy, indented, bluish, sessile. Flowers white. Calyx with brown spots. Pods roundish. June, July. Corn-fields, &c.

4. *Montanum*. *Mountain Mithridate Mustard*. Stalks several, firm, about six or eight inches high. Radical leaves oval, dark bluish, smooth, entire, thick, in a round tuft; the rest embrace the stem. Flowers small, white; corolla longer than the calyx. Pods pear-shaped. July. On the mountains in Yorkshire, &c.

5. *Perfoliatum*. *Perfoliate Treacle Mustard*. Stalk simple, from four inches to near a foot high. Radical leaves oval, on short foot-stalks; those above heart-shaped, perfoliate, slightly indented, tapering to a point. Flower white; corolla scarce longer than the calyx. Stamina white, longer than the corolla; antheræ yellowish. Pods like *Shepherd's Purse*. June. On high limestone pastures.

6. *Bursa Pastoris*. *Shepherd's Purse*. Stalks branched, firm, about a foot high. Radical leaves pinnatifid; those above embrace the stem. Flowers white. Pods flat, heart-shaped. March, April. Very common.

COCHLEARIA. Pod heart-shaped, notched, turgid, rough; valves gibbous, obtuse.

1. *Officinalis.* *Common, or Garden Scurvy-grass.*

Stalks numerous, weak, about a foot high. Radical leaves roundish; those above, oblong, narrow, opposite. Flowers white, in small tufts, terminal. April, May. On the coast, and on mountains.

2. *Anglica.* *English, or Common Sea Scurvy-grass.*

Stalks slender. Leaves ovato-lance-shaped, sinuated; those from the root fleshy. Flowers small, white. May. On the coast.

3. *Danica.* *Danish Scurvy-grass.*

Stalks numerous, about eight inches high. Leaves triangular, resembling ivy, fleshy, on foot-stalks. Flowers small, white. May. On the Lancashire coast.

4. *Groenlandica.* *Groenland Scurvy-grass.*

Stalks numerous, weak, with few branches, about six inches high. Leaves kidney-shaped, fleshy, intine; those from the root convex beneath, on long foot-stalks. Flowers white. April, May. On mountains in Wales, &c.

5. *Coronopus.* *Swine's Cresses.*

Stalks numerous, branched, procumbent. Leaves pinnatifid; segments narrow, notched on each side at the end. Flowers white, in the alæ of the leaves. June, July. High-roads, &c. frequent.

6. *Armoracia,*

6. *Armoracia*. *Horse-radish*. Stem erect, near three feet high. Radical leaves a foot and half long, lance-shaped, notched in the edges; those on the stem indented. Flowers small, white, terminal. May. Among rubbish, ditches, &c. in the North.

IBERIS. Exterior petals largest; the other two reflex. Pod erect, roundish, compressed, bilocular; margin acute; valves navicular, carinated. Seeds several.

1. *Nudicaulis*. *Rock Crest*. Stalks erect, naked, simple, about four inches high. Leaves pinnatifid. Flowers white, small, terminal. May. On gravelly soil.

II. SILIQUOSA.

Pod long, with a short apex.

* *Calyx closed, its leaves longitudinally connivent.*

DENTARIA. Pod cylindrical, bilocular, bivalve, bursting elastically; valves rolling upward. Stigma notched.

1. *Bulbifera*. *Coralwort*. Stalks erect, weak, about a foot high. Upper leaves simple; lower leaves pinnated; pinnæ seven. Black berries in the axæ of the leaves. Flowers white, or reddish. April. In woods.

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ERYSIMUM. Pod long, straight, quadrangular, bivalve, bilocular. Seeds several, small.

1. Officinale. *Hedge Mustard*. Stem a little branched, erect, two or three feet high. Leaves harsh, deeply sinuated. Flowers yellow, in long spikes, terminal. Pods pressed close to the stem. June, July. On waste ground.

2. Barbarea. *Winter Cresses*, or *Rock*. Stalks branched, near two feet high. Leaves pinnatifid, with a large roundish segment at the end. Flowers yellow, terminal. May, June. In ditches.

3. Alkaria. *Jack by the Hedge*, or *Sauce alone*. Stalks erect, with few branches, yellowish, two or three feet high. Leaves on foot-stalks, single, heart-shaped, indented. Flowers white, terminal. May. Under hedges. Smells like garlick.

4. Cherianthoides. *Treacle Wormseed*. Stem erect, firm, branched towards the top. Leaves numerous, sessile, lance-shaped, intire. Flowers small, yellow, terminal. July. In fens frequent.

CHEIRANTHUS. Two opposite leaves of the calyx gibbous at the base. Germen angular, with a glandular tubercle on each side. Seeds several, pendulous, alternate, flat.

1. Cheiri. *Wall-flower*. Stalk firm, erect, branched. Branches angular. Leaves sessile, lance-shaped.

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shaped. Flowers yellow, in spikes, terminal. April, May. On walls, &c.

2. *Tricuspidatus*. *Sea Wall-flower*, or *July-flower*. Stalks numerous, weak, branched, somewhat hairy. Leaves narrow, deeply sinuated, hairy, pale, sessile. Flowers white, terminal. Pods with a triple apex. June, July. On the coast of Wales and Cornwall.

HESPERIS. Petals bent obliquely. Two opposite leaves of the calyx gibbous at the base. A melliferous gland between the shorter stamina. Style o. Stigma forked at the base; apex connivent. Pod straight.

1. *Matronalis*. *Unsavory Dame's Violet*. Stem simple, erect. Leaves ovato-lance-shaped, denticulated. Flowers large, purplish white; petals notched at the apex. May. On the banks of rivers in the North.

ARABIS. Two opposite leaves of the calyx larger, and gibbous at the base. Four nectariferous glands, like scales, reflex, between the leaves of the calyx. Stigma simple.

1. *Thaliana*. *Coded Mouse-ear*. Stalks numerous, erect, branched, about eight inches high. Radical leaves on foot-stalks, intire, ovato-lance-shaped, hairy, numerous, in a round tuft; those on the stem sessile, and often smooth. Flowers white. May. On walls, &c.

TURRITIS.

TURRITIS. Pod very long, straight, angular. Calyx erect. Corolla erect.

1. *Glabra*. *Great Tower Mustard*. Stalks erect, simple, about a foot and half high. Radical leaves rough, sometimes intire, sometimes indented, in a round tuft; the rest, smooth, arrow-shaped, embrace the stem. Flower small, greenish white, in a long spike, terminal. May. In meadows, &c.

2. *Hirsuta*. *Hairy Tower Mustard*. Stalks erect, about nine inches high. Radical leaves sessile, hairy, in a thick tuft; the rest hairy, embracing the stem. Flowers small, white, in a spike, terminal. June. On rocks and old walls.

BRASSICA. Two nectariferous glands between the shorter stamina and pistillum; and two between the longer and the calyx. Seeds globose.

1. *Orientalis*. *Persilicate Cabbage*. Stalk erect, branched, three feet high. Radical leaves rough, intire; the rest smooth, heart-shaped, embracing the stem. Flowers white, small, in long spikes. Pods long, square. June. In corn-fields, &c.

2. *Napus*. *Wild Nettle*. Stem erect, about three feet high. Radical leaves deeply sinuated, smooth; the rest heart-shaped, oblong, embracing the stem, slightly indented. Flowers yellow; calyx spreading.

ing. Root taper. May. On the banks of ditches, &c.

3. *Rapa, Turnip*. Stalk erect, about three feet high. Radical leaves rough, deeply sinuated, large. Flowers yellow. Root orbicular, depressed. April. In fields, &c.

4. *Oleracea, Sea Cabbage*. Root cylindrical, fleshy. Stem thick and spongy, about three feet high. Leaves large, thick, scalloped. Flowers yellow. Seeds purplish brown. April. On Dover-cliff, &c.

5. *Erucastrum, Wild Rocket*. Stalks branched, rough, about three feet high. Leaves pinnatifid, indented. Flowers yellow. May. On old walls, &c.

RAPHANUS. Nectariferous glands like the preceding genus. Pod bunched-out by the seed, and jointed,

1. *Raphanistrum, Bastard Radish*, or *white* or *yellow flowered Charlock*. Leaves rough, sinuated, on foot-stalks. Pods cylindrical, smooth, unilocular. June, July. In common fields.

** *Calyx spreading.*

CARDAMINE. Pod slender, roundish; Valves bursting elastically, and rolling back. Stigma intire. Calyx spread a little.

1. *Bel-*

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1. *Bellidifolia*. *Daisy-leaved Ladysmock*. Stem simple, three or four inches high. Radical leaves oval, simple, intire, on long foot-stalks; the rest generally sessile. Flower white, sometimes purplish; calyx brown. Pod large. April, May. On the Welsh mountains, &c.
2. *Petræa*. *Mountain Ladysmock*. Stem simple, about four inches high. Leaves oblong, dentated. Flowers large and white. May. On high mountains in Wales.
3. *Impatiens*. *Impatient Ladysmock*. Stem erect, near a foot high. Leaves pinnated; pinnæ cut at the edges. Petals 0. April. On the mountains in the North.
4. *Parviflora*. *Small-flowered Ladysmock*. Stem six or eight inches high. Leaves pinnated, lance-shaped, obtuse, but little dentated, smooth, and without stipulæ. Flowers white, small. Pods erect, on horizontal pedicles. April, May. In meadows and banks of rivers frequent.
5. *Hirsuta*. *Hairy Ladysmock*. Stalks slender, inclining, branched eight or ten inches. Leaves pinnated, hairy. Flowers white, tetrandria, in naked spikes. Seeds four or six. April—Aug. In meadows, &c. frequent.
6. *Pratensis*. *Common Ladysmock, or Cuckow-flower*. Stem hard, firm, almost naked, about a foot high. Leaves pinnated; pinnæ from the root roundish, those on the stalk lance-shaped. Flowers large, white,

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white, or purplish. April. In wet meadows, &c. frequent.

7. *Amara. Bitter Ladysmock, or Cress.* Stalk but little branched, about two feet high. Leaves pinnated; pinnae somewhat angular. Flower large, white, on shoots from the axils of the leaves. April, May. In wet pastures.

SISYMBRIUM. Pod curved, bursting; valves after bursting nearly straight. Calyx and corolla spreading. Seeds several, small.

* Pods declining, short.

1. *Nasturtium. Water Cresses.* Stalks weak, branched. Leaves pinnated, somewhat heart-shaped. Flowers small, white, in tufts, terminal. May. In shallow streams.

2. *Sylvestre. Water-Rocket.* Stalks weak, branched, above a foot high. Leaves pinnated; pinnae lance-shaped, serrated. Flowers small, yellow. June. In shallow water frequent.

3. *Amphibium. Water Radish.* Stalks firm, erect, two or three feet high. Leaves pinnatifid, serrated. Flowers yellow, in spikes. Pods somewhat oval, short. June. In water.

SINAPIS. Calyx spreading. Claws of the petals erect. Two glandular depresses the root flammula and bulbilium. ** Stalks

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**** Stalks naked.**

4. *Murale. Wall Rocket.* Stalks rough, about eight inches high. Leaves, on foot-stalks, lance-shaped, smooth, sinuated, serrated. Flowers yellow. Pods a little compressed, and slightly carinated. June. On sandy ground in the North, Anglesea, &c.

5. *Montense. Yellow Rocket.* Stalks smooth, about six or eight inches high. Leaves pinnatifid; pinnae remote, generally seven pair. Flower yellow; petals intire; calyx closed. June. In the Isle of Man.

***** Leaves bipinnated.**

6. *Iris. Broad-leaved Rocket, or Hedge Mustard.* Stalk smooth, about two feet high. Leaves broad, naked, pinnated, halberd-shaped at the end. Flowers yellow. Pods erect. May—August. On waste ground.

7. *Sophia. Flixweed.* Stalk firm, branched, two or three feet high. Leaves multifid; segments narrow. Flowers yellow; petals much less than the calyx. Pods long, stiff, curved, without style, erect. Seeds minute, yellow. July. On walls, waste ground, &c.

SINAPIS. Calyx spreading. Claws of the petals erect. Two glandules between the short stamina and pistillum, also

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also between the longer and the calyx.
Pods spongy within, bursting.

1. *Arvensis. Wild Mustard, or Charlock.* Stalks branched, about a foot and half high. Leaves broad, harsh, deeply sinuated, serrated, resembling those of the turnip. Flowers yellow. Pods multangular, torose, with a long beak. Seeds brown. June, July. Corn-fields, waste ground, &c.

2. *Alba. White Mustard.* Stem branched, hairy, about two feet high. Leaves large, rough, deeply sinuated. Flowers yellow. Pods hairy, spreading, with a very long oblique beak. Seeds white, or reddish. July, August. Waste ground, &c.

3. *Nigra. Common Mustard.* Stem branched a little, three feet high. Lower leaves rough, deeply sinuated; upper leaves smooth, entire. Calyx yellow. Pods erect, smooth, quadrangular. Seeds brown. June. On waste ground.

BUNIAS. Calyx spreading, deciduous. Pod irregular, quadrangular; sides unequal, ovato-oblong, with points, deciduous.

1. *Cakile. Sea Rocket.* Stalks partly procumbent. Leaves oblong, indented. Flowers pale purple. Seed single. June. On the coast frequent.

ISATIS. Calyx coloured. Style o. Pod oblong, lance-shaped, obtuse, compressed,

pressed, two-edged, unilocular, bivalve;
valves navicular, crenate, deciduous.

1. *Tindoria*. *Wood*. Stem firm, erect, about
four feet high. Leaves long, pointed,
thick, bluish; those from the root
notched, the rest arrow-shaped. Flow-
ers yellow. Seed single. July. In
the fields between Bath and Bristol, &c.

CRAMBE. Four longer stamina bifid
at the apex. Berry dry, unilocular,
deciduous. Seed one.

1. *Maritima*. *Sea Colewort*. Stem erect, branch-
ed, smooth, near three feet high. Leaves
large, smooth, bluish, wavy at the
edges, heart-shaped, fleshy. Flowers
whitish. May. On the coast.

CLASS

CLASS XVI.

MONODELPHIA;

Stamina, in one set, united below.

I. DECANDRIA.

Stamina 5 or 10.

GERANIUM. Calyx of five leaves, permanent. Pistillum one; style subulate, long, permanent; stigmata five, reflex. Capsule long, taper, with five cells, each containing a single seed.

* Stamina 5.

1. **Cicutarium.** *Hemlock-leaved Cranesbill.* Stalks branched, weak. Leaves pinnated, indented, obtuse. Flowers red, three or more on each pedicle. April—June. Waste ground, &c.

2. **Molchatum.** *Musk Cranesbill.* Differs from the last in the leaves being broader, and more intire, and in smelling like musk. May. In dry meadows, &c.

3. **Maritimum.** *Sea Cranesbill.* Stem prostrate, branched. Leaves heart-shaped, cut and notched at the edges, obtuse, some-

what hairy. Flowers pale red, generally two on each pedicle. June, July. On the Western coast.

* * Stamina 10.

4. Phæum. *Spotted Cranesbill*. Stem erect, two or three feet high, branched. Leaves alternate, downy, five-lobed, serrated. Flowers dark purple, two on each pedicle; petals waved. Calyx soft, with a short spine. April, May. On high ground.
5. Nodosum. *Knotty Cranesbill*. Stem branched, about a foot high, with thick joints, generally red. Leaves trilobed, serrated. Flowers red, two on each pedicle. July, August. On the mountains in the North.
6. Sylvaticum. *Mountain Cranesbill*. Stem erect, about two feet high. Leaves roundish, multifid, serrated. Flowers purplish red, large; two on each pedicle; petals notched. July, Aug. On the mountains in the North.
7. Pratenfe. *Crowfoot Cranesbill*. Stem erect, a foot and half high. Leaves roundish, quinquifid; lobes branched, trilobed, pinnated, acute, wrinkled. Flowers blue; petals intire, large; two flowers on each pedicle. June, July. In moist pastures, &c.
8. Robertiana. *Herb Robert*. Stem branched, spreading, jointed, reddish. Leaves hairy

hairy, pentagonal, trifid; lobes pinnatifid. Flowers red; calyx hairy, 10-angular. Two flowers on each pedicle. April—June. In hedges, &c.

9. *Lucidum*. *Shining Dovesfoot Cranebill*. Stem branched, about a foot high, reddish, glossy. Leaves of five lobes, rounded, smooth. Flowers red, two on each pedicle; calyx pyramidal, angular, wrinkled. June, July. On walls, &c.

10. *Rotundifolium*. *Round-leaved Cranebill*. Stem prostrate, about a foot long, branched. Leaves small, kidney-shaped, divided into many segments. Flowers small, blue, two on each pedicle; petals intricate, the length of the calyx. July. On walls, &c.

11. *Molle*. *Common Dovesfoot Cranebill*. Stem branched, diffuse, weak, about a foot high. Leaves very broad, soft, kidney-shaped, quinquepartito-multifid; floral leaves alternate. Petals purple, bifid. Capsule hairy. May. Fields and hedges.

12. *Dissectum*. *Fagged-leaved Dove-foot Cranebill*. Stem branched, leafy, erect, above a foot high. Leaves on long foot-stalks, in five lobes, multifid; segments very narrow. Flowers red, two on each long pedicle; petals notched. Capsule woolly. May, June. In meadows, &c.

13. *Col-*

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13. *Columbinum*. *Long-stalked Dovesfoot Cranebill*. Stem branched, prostrate. Leaves somewhat hairy, semicircular, deeply divided into five segments; middle lobes trifid, segments acute. Flowers two, reddish blue, on very long pedicles; calyx bearded; capsule smooth. July. In corn-fields, &c.

14. *Puffillum*. *Small-flowered Dovesfoot Cranebill*. Stem diffuse, about four inches high. Leaves reniform, palmated; segments acute. Flowers blue, two on each foot-stalk; petals bifid. June. In corn-fields.

15. *Sanguineum*. *Bloody Cranebill*. Stem branched, erect, not diffuse, above a foot high. Leaves round, in five or seven lobes, trifid. Flowers purplish red, one on each pedicle, large. June, July. Among rocks, in dry pastures, &c.

II. POLYANDRIA.

Many Stamina.

ALTHEA. Calyx double; exterior in nine segments, unequal; interior quinquefid. Corolla of five petals. Capsules several, containing each a single round flat seed.

1. *Officinalis*. *Marshmallow*. Stem firm, erect, three feet high. Leaves simple, woolly; those from the root roundish, the rest somewhat triangular. Flowers purplish white, large. August. In salt marshes frequent.

MALVA. Calyx double; exterior of three leaves; otherwise like the last genus.

7. Ro-

1. *Rotundifolia. Dwarf Mallow.* Stalks prostrate. Leaves heart-shaped, rounded, in five slight lobes, or rather angles. Flowers white, with a purple tinge. June—November. Annual. High-roads, &c.
2. *Parviflora. Small-flowered Mallow.* Stem spreading, somewhat erect, about a foot high. Leaves roundish, angulated. Flowers purplish, small, sessile, crowded round the joints; calyx smooth, spreading. June. On sandy ground, in Kent, &c.
3. *Sylvestris. Common Mallow.* Stem erect, firm, about three feet high. Leaves waved, in five or seven lobes, obtuse, serrated, on hairy foot-stalks. Flowers purple, on hairy pedicles, from the axæ of the upper leaves; petals heart-shaped. May—Nov. On waste ground frequent.
4. *Alcea. Vervain Mallow.* Stem firm, erect, three feet high. Leaves divided into many narrow segments, somewhat rough. Flowers purple, more expanded than in the common mallow, in clusters, terminal. July—Oct. In hedges, &c.
5. *Moschata. Jagged-leaved Vervain Mallow.* Radical leaves kidney-shaped, cut a little at the edges; those above quinquepartite, pinnato-multifid. Flowers like the last. August. Meadows, &c.

LAVATERA. Exterior calyx trifid; otherwise like the two last genera.

6. *Arborea. Sea Tree-Mallow.* Stem woody. Leaves heptangular, folded, downy. Flowers, on pedicles, single, from the axæ of the leaves, in whorls. August. On the coast.

CLASS XVII.

DIADELPHIA.

Flowers papilionaceous, generally of four irregular petals. Stamina, generally, in two sets, viz. one consisting of nine filaments, the other of one. Pericarpium generally a *Legumen*; that is, a pod, like our common Garden Pea.

I. HEXANDRIA.

Stamina 6.

FUMARIA. Calyx of two leaves, equal, erect, acute, permanent. Corolla ringent, monopetalous, with a blunt spur. Filaments two, with three antheræ on each. Seed single, inclosed in a loose membrane.

1. *Officinalis.* *Fumitory.* Stalks numerous, weak, intricate, branched, about a foot high. Leaves doubly pinnated; pinnæ trilobed; lobes bifid, and trifid. Flowers pink and deep purple, in long spikes, terminal. April—June. In fields and waste ground frequent.

2. *Capreolata.* *Ramping Fumitory.* Stalks numerous, weak, near two feet high. Leaves of many segments, terminating in

in a tendril. Flowers pale red, in long loose spikes. August. Hedges, &c.

3. *Claviculata. Climbing Fumitory.* Stalks weak, branched, about a foot high. Leaves broad, bluish, with tendrils. Flowers purplish white, in spikes, terminal. Pods linear. June. Hedges, woods, &c.

II. OCTANDRIA.

Stamina 8.

POLYGALA. Calyx of five leaves; two of which are like wings, and coloured. Corolla of four petals. Pod heart-shaped, bilocular. Seed single, oval.

1. *Vulgaris. Milkwort.* Stalks prostrate, branched, about six inches long. Leaves narrow, pointed, entire, sessile, irregular. Flowers crested, blue, or reddish, or white, in spikes, terminal. May, June. Heaths, &c.

III. DECANDRIA.

Stamina 10.

SPARTIUM. Calyx small, quinquedentate, coloured. Corolla papilionaceous, of five petals, the carina consisting of two. Stigma longitudinal, woolly above. Filaments adhering to the carina.

1. *Scoparium. Common Broom.* A shrub about four feet high. Branches angular, without spines. Leaves ternate and single, narrow. Flowers large, yellow. May, June. In dry pastures, &c.

GENISTA. Calyx small, bilabiate, quinque-dentate. Vexillum bent backward by the pistillum and stamina, distant from the carina, which is longer than the vexillum.

1. *Tinctoria. Dyers Weed, or Broom.* A low shrub, with many stems. Branches striated, erect. Leaves lance-shaped, single, smooth, numerous. Flowers yellow, in close spikes, terminal. July. In pastures, &c.

2. *Anglica. Needle Furze, or Petty Whin.* A low shrub, erect, with many branches. Spines simple, and on the older branches only. Leaves lance-shaped. Flowers yellow, in spikes. May, June. On moist heaths, &c.

ULEX. Calyx of two leaves, quinque-dentate. Corolla of five leaves. Pod almost covered by the calyx.

1. *Europæus. Common Furze, Whins, or Gorse.* Leaves narrow, taper, acute, downy. Spines firm, numerous. Flowers yellow, in spikes, terminal. April, May. On commons frequent.

ONONIS. Calyx in five segments, almost as long as the corolla; segments acute. Vexillum heart-shaped, striated. Pod turgid, sessile.

1. Spi-

1. *Spinosa. Restharrow.* Stalks several, tough, red, not erect, a foot and half high. Leaves narrow, pointed, serrated, numerous, ternate. Branches spinous. Flowers purple, on short pedicles, from the axæ of the leaves. June—August. In barren pastures.

2. *Arvensis. Corn Restharrow.* Stem about two feet high, much branched, and leafy. Branches without spines. Leaves oval, somewhat hairy, serrated, viscid, on long foot-stalks, from long bivalve sheaths. Flowers red, in spikes, terminal. July, August. In barren pastures, &c.

3. *Repens. Creeping Restharrow.* Stem diffuse. Branches erect. Leaves numerous, oval, downy, ternate; stipulæ oval. Flowers in the axæ of the leaves, red, whitish. June, July. On the coast.

ANTHILLIS. Calyx a little inflated, hairy, quinque-dentate, unequal. Pod roundish, small, concealed within the calyx.

1. *Vulneraria. Kidney Vetch, or Lady's Finger.* Stem near a foot long, generally prostrate. Leaves pinnated; pinnae several pair, with a larger one at the end. Flowers yellow, sometimes red, on slender pedicles, in a double head. July. In dry pastures, &c.

PISUM. Calyx quinquifid; two upper segments broadest. Style triangular, downy, carinated above. Pod large. Seeds several, round.

1. Mari-

1. *Marinum.* *Sea Pease.* Root very long. Stalks weak, angular, two or three feet long. Leaves pinnated, terminated by a tendril; stipulæ arrow-shaped. Flowers pale red and purple, in clusters, on naked pedicles. July. On the Suffex coast, &c.

OROBUS. Calyx quinque-dentate, tubular, obtuse at the base; three lower teeth sharper; upper teeth shorter, and deeply divided. Style filiform, bent upward. Stigma linear, downy.

1. *Tuberosus.* *Wood Pease, or Heath Pease.* Root tuberous. Stem simple, erect, about a foot high. Leaves pinnated, smooth. Flowers purple, three or four in a cluster. Pods black, cylindrical, pendulous. May. In meadows, woods, &c.
2. *Sylvaticus.* *English Wood Vetch.* Stalks branched, hairy, decumbent, near two feet long. Leaves of about seven pair of pinnæ. Flowers red on the out-side, purple and white within, five or six in a cluster. July. In woods and hedges.

LATHYRUS. Calyx campanulate, quinquifid, two upper segments shortest. Style plane, downy above. Pod very long.

* *A single flower on each pedicle.*

1. *Aphaca.* *Yellow Vetchling.* Stalk angular, weak, branched, near two feet long.
Leaves

Leaves, or rather stipulae, in pairs, triangular, bluish green, with a simple naked tendril between. Flowers yellow. Seeds about ten. June, July. In corn-fields, but rare.

2. *Nissola*. *Crimson Grass Vetch*. Stalk erect. Leaves alternate, narrow, like grass, striated. Flowers small, red, on long pedicles, from the ax of the leaves. Pod three inches long, pendulous, hairy. Seeds about twelve, round, spotted. May. In corn-fields, &c.

** *Two flowers on each pedicle.*

3. *Hirsutus*. *Rough-podded Chickling Vetch*. Stalk about two feet long. Leaves in pairs, lance-shaped, sharp-pointed. Tendrils branched, with two leaves. Flowers crimson, with yellow lines within, on long pedicles. Pod very hairy. Seeds rough. July. In corn-fields.

*** *Many flowers on each pedicle.*

4. *Latifolius*. *Broad-leaved Pease - everlasting*. Stalks weak, flat, three or four feet long. Leaves in pairs, oval, two inches broad. Claspers from between two leaves. Flowers pale purple, ten or twelve in a cluster. Pods three inches long. July. In woods and hedges.

5. *Sylvestris*. *Narrow-leaved Pease - everlasting*. Differs from the last in the leaves being narrower,

narrower, and the flowers red and white.
June, July.

6. *Pratenfis. Tare-everlasting, or Yellow Vetchling.*

Stalks weak, quadrangular, about a foot high, with many branches. Leaves, in pairs, elliptical, pointed at each end. Flowers yellow. Claspers small. Pods black, smooth. June, July. In woods, &c.

7. *Patustris. Marsh Chickling Vetch.*

Stalks branched, edged, weak, about two feet long. Leaves pinnated. Flowers blue and red. Claspers with several leaves. June, July. In moist meadows.

VICIA. Calyx tubular, quinquefid; upper teeth shorter, but all of equal breadth. Stigma bearded transversely on the under side. Pod ending in a point.

* *Flowers on long pedicles.*

1. *Sylvatica. Tufted Wood Vetch.*

Stem angular, two feet long or more. Leaves pinnated; pinnae about eight pair, oval. Stipulae dentated. Flowers white streaked with blue, numerous, pendulous, in long spikes. June, July. In woods and hedges.

2. *Cracca. Tufted Vetch.*

Stem branched, three or four feet long. Leaves pinnated; pinnae generally ten or twelve pair, lance-shaped, downy. Stipulae entire. Flowers purple, numerous, pendulous,

in imbricated spikes. June, July. In woods and hedges.

** Flowers in the axils of the leaves, subsessile.

3. *Sativa, Common Vetch, or Tare.* Stalks round, weak, branched, about two feet long. Pinnæ five or seven pair, a little hairy, notched at the end. Stipule dentated. Flowers light and dark purple, on short pedicles, generally two together. Pods erect. Seeds black.

4. *Lathyroides. Strangle Tare, or Wild Vetch.* Stem not much branched, scarce two feet high. Leaves pinnated; pinnæ three or four pair, notched at the ends; those below oval, the rest narrow. Flowers bright red, two together. Pods erect, smooth. Seeds about nine, brown. May, June. In dry, sandy pastures.

5. *Lutea, Yellow Vetch.* Leaves subsessile, oval, notched at the end. Flowers yellow. Pods single, sessile, hairy, reflex, thick. June, July. In meadows, &c.

6. *Sepium. Bush Vetch.* Stem weak, quadrangular, five or six feet long. Pinnæ seven or eight pair, oval, with the ends cut off. Flowers purple, generally four together, on short pedicles. Pods short, on pedicles. May. Among bushes.

ERVUM. Calyx almost as long as the corolla, in five segments, nearly equal. Stigma obtuse, not bearded.

1. **Tetralpermum.** *Smooth Tare.* Stalks numerous, weak, about a foot long, angular. Pinnæ often ten pair, generally alternate. Flowers red, or purple, two or three together. Pods smooth, containing four seeds. June. In corn-fields, &c.

2. **Hirsutum.** *Rough Tare.* Stalks weak, very slender, scarce a foot long. Leaves pinnated. Flowers blue and white, five or six in a cluster, on pedicles. Pods short, hairy. Seeds round, whitish, generally two. June. In corn-fields, &c.

3. **Soloniense.** *Spring Tare.* Stalk about a foot long. Pinnæ three or four pair, obtuse. Flowers purple, generally single, on a pedicle, with a tendril. Foot-stalks of the leaves sharp-pointed. Pod slender. Seeds angular. April, May. In chalky pastures, &c.

ORNITHOPUS. Calyx quinque-dentate. Pod taper, round, curved, jointed. Seed single in each joint.

1. **Perpusillus.** *Birdsfoot.* Stalks weak, five or six inches high. Leaves pinnated; pinnæ small, roundish, numerous, with an odd one at the end. Flowers yellow, purple and white, in a simple umbel.

umbel. Pods resemble a bird's foot.
May—August. In pastures, &c.

HIPPOCREPIS. Calyx quinque-dentate, the two upper denticles conjunct. Pod compressed, curved, with one suture deeply indented.

L. Comosa. *Tufted Horseshoe Vetch.* Stalks weak, branched, scarce a foot long. Pinnæ oval, five or six pair, with an odd one. Flowers yellow, numerous, in simple umbels, terminal. Pods waved on the outer suture, pendulous. July. On chalk hills.

HEDYSARUM. Carina transversely obtuse, so as to be almost triangular. Pod roundish. Seed single.

1. Onobrychis. *St. Foin, or Cock's-head.* Stalks several, weak, half a yard long. Leaves pinnated, about seven pair, with an odd one; pinnæ oblong, pointed. Flowers red; wings of the corolla very short. Pods prickly, containing a single seed. July. In chalky pastures.

ASTRAGALUS. Calyx quinque-dentate; lower teeth gradually less. Vexillum longest petal. Pod bilocular, gibbous, rounded.

1. Glycyphyllos. *Wild Liquorice, or Liquorice Vetch.* Stem branched, procumbent. Leaves large, pinnated; pinnæ five or six pair, with an odd one, oval. Flowers pale yellow, in thick bunches.
Pods

Pods triangular, the upper side hollow.
Seeds numerous, brown. June, July.

2. *Arenarius*. *Purple Mountain Milkwort*. Stalks about three inches long, procumbent. Leaves pinnated, downy. Flowers purple, in clusters, erect. June, July. On downs, heaths, &c.

TRIFOLIUM. Vexillum reflex, and generally longer than the other petals. Pods very short, univalve, not bursting, deciduous. Leaves three together. Flowers generally in round heads.

* *Meliloti*: pods naked, containing more than one seed.

1. *Officinalis*. *Common Melilot*. Stalks erect, hollow, branched, three feet high. Leaves on foot-stalks, oblong, serrated. Flowers yellow, pendulous, on long spikes. Seeds two. June, July. In corn-fields, hedges, &c.

2. *Ornithopoides*. *Bird's-foot Trefoil*. Stalks about five inches long, procumbent. Leaves serrated. Flowers pale purple. Pods, three on one foot-stalk, longer than the calyx, erect. Seeds eight. June. In sandy meadows, &c.

** *Lotoidea*: pods covered; seeds four.

3. *Repens*. *White Trefoil*, or *Dutch Clover*. Stalks creeping. Leaves with a white spot in the middle. Flowers white, on short pedicles, in a roundish head. May,

May—October. In meadows, &c. every where.

*** *Lagopoda*: *Calyx wooly*.

4. *Subterraneum*. *Dwarf Trefoil*. Leaves heart-shaped. Flowers white, in wooly heads, five in each. Central involucre reflex, rigid; involving the fruit. Pods frequently under ground. May. In barren pastures near London, &c.
5. *Pratense*. *Purple*, or *Honeysuckle Trefoil*, or *Clover*. Stalks diffuse, about eight inches long. Leaves on short foot-stalks; roundish, often marked with a white spot, and somewhat hairy. Flowers red, or purple, or yellowish white, in longish heads, between two membranous stipulæ; corollæ monopetalous. Lower tooth of the calyx very long. May—Sept. In meadows, &c. frequent.
6. *Arvense*. *Hare's-foot Trefoil*. Stalks erect, branched, downy. Leaves narrow, notched at the end, on very short foot-stalks, and very soft. Flowers pale red; small, in oblong, downy, spikes. Calyx quinque-dentate; longer than the flower. June, July. In corn-fields, &c.
7. *Scabrum*. *Oval-headed*, or *rough Trefoil*. Stalks leaning, branched. Leaves on short foot-stalks, oval, notched. Flowers white, very little longer than the calyx, in oval, rough, heads, sessile, lateral. May, June. On chalk hills.

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8. *Glomeratum. Round-headed Trefoil.* Stalks decumbent. Leaves small, broad, indented. Flowers pale red, in round heads, sessile, lateral; calyces striated, spreading, with intermediate, rigid segments. June. In meadows, &c. On sandy soil.

9. *Striatum. Knotted Trefoil.* Flowers small, pale purple, in soft, oval, lateral, heads, sessile; calyces striated, rounded. Seed large. Leaves somewhat hairy. June. In dry pastures.

10. *Alpestre. Long-leaved purple Trefoil.* Stem erect. Leaves lance-shaped, serrated. Flowers deep purple, in roundish, wooly heads, terminal. July. In mountainous pastures.

11. *Stellatum. Teasel-headed Trefoil.* Stalks diffuse. Leaves hairy, wedge-shaped. Flowers small, red, in round, wooly spikes; calyces spreading. July. In salt marshes, &c.

**** *Vesicaria: Calyces inflated.*

12. *Fragiferum. Strawberry Trefoil.* Stalks creeping, about five inches long. Leaves, on long foot-stalks, oval, obtuse, bluish, serrated. Flowers reddish white, in roundish heads; calyces bidentate, reflex. August. In moist pastures.

***** *Lupulina: Vexillum reflex.*

13. *Agrarium. Hop Trefoil.* Stalks hard, branched, generally erect. Leaves smooth, oval,

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oval, or heart-shaped, bluish, on short foot-stalks. Flowers yellow, on naked pedicles, in imbricated heads, resembling hops. June. In meadows, &c.

14. Procumbens. *Procumbent Trefoil*. Stalks procumbent, near a foot long. Leaves small, heart-shaped. Flowers small, yellow, in oval, imbricated spikes, or heads. May—August. In meadows, &c.

15. Filiforme. *Small Trefoil*. Stalks very slender, procumbent, about four inches long. Leaves notched, striated, somewhat heart-shaped. Flowers small, yellow; calyces on short pedicles. May, June. In sandy pastures.

LOTUS. Calyx cylindrical, quinquefid; teeth sharp, equal. Wings of the corolla broad, connivent upwards. Pod cylindrical, stiff, longer than the calyx.

1. *Corniculata*. *Bird's-foot Trefoil*. Stalks branched, decumbent. Leaves oblong, pointed, three on each foot-stalk, with two at the base. Flowers yellow, in clusters, on pedicles, from the axæ of the leaves. Seeds numerous. June—August. In meadows, hedges, &c.

MEDICAGO. Calyx cylindrical, bellying a little, quinquefid. Wings of the corolla connivent under the carina, to which they are fixed by a short appendix. Carina bifid, oblong, obtuse, deflex. Pod spiral, compressed, containing many seeds.

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1. *Sativa. Lucern.* Stalks erect, branched, about two feet high. Leaves numerous, serrated, three on each foot-stalk. Flowers purple, in clusters, on pedicles. June, July. In meadows, &c.
2. *Falcata. Yellow Medick.* Stalks numerous, branched, prostrate, somewhat woody. Leaves yellowish, narrow, three on each foot-stalk. Flowers yellow, in clusters, terminal. Pods curved. July. In high roads, &c.
3. *Lupulina. Melilot Trefoil.* Stalks slender, procumbent, above a foot long. Leaves small, obtuse. Flowers yellow, in oval spikes. Pods reniform. May—August. In corn-fields, &c.
4. *Arabica. Heart Trefoil, or Clover.* Stalks slender, diffuse, eight or ten inches long. Leaves heart-shaped, on foot-stalks. Flowers yellow, on pedicles, in clusters. Pods prickly, twisted. May. In meadows, corn-fields, &c.

CLASS

C L A S S XVIII.

P O L Y A D E L P H I A.

Many sets of united Stamina.

P O L Y A N D R I A.

Many Stamina in each set.

HYPERICUM. Calyx quinquepartite ; segments oval, concave, permanent. Petals five, regular, obtuse, spreading. Filaments in five sets. Pistilla three.

1. *Androsæmum.* *Tutsan*, or *Park-Leaves*. Stalks numerous, hard, firm, two-edged. Leaves opposite, oval, large. Flowers large, yellow, in clusters, terminal. Pericarpium resembles a berry. The leaves generally grow red in autumn. July. In woods and moist hedges frequent.
2. *Quadrangulum.* *St. Peter's Wort*. Stem quadrangular, herbaceous, branched, about a foot high. Leaves opposite, sessile, oval, obtuse. Flowers yellow, on pedicles. July. In moist hedges.
3. *Perforatum.* *St. John's Wort*. Stem two-edged, about two feet high, branched towards the top. Leaves elliptical, opposite,

posite, obtuse, with pellucid spots. Flowers yellow, in clusters, terminal, yielding a red juice when bruised. July. In hedges, &c.

4. Humifusum. *Trailing St. John's Wort*. Stalks procumbent, edged, about six inches long. Leaves opposite, smooth, not punctured. Flowers yellow, single, axillary and terminal. July. In meadows, &c.
5. Montanum. *Imperforate St. John's Wort*. Stalk single, simple, near two feet high, erect. Leaves large, broad, not punctured, smooth. Flowers yellow, large, on pedicles, terminal; calyces ferrato-glandular. In woods not frequent.
6. Hirsutum. *Hairy St. John's Wort*. Stalks round, erect. Leaves oval, hairy. Flowers yellow; calyces ferrato-glandular. July. In hedges, &c.
7. Pulchrum. *Upright St. John's Wort*. Stem round, naked, erect. Leaves heart-shaped, smooth, opposite, conjugate. Flowers yellow; calyces ferrato-glandular. July. In woods, hedges, &c.
8. Elodes. *Marsh St. Peter's Wort*. Stalks creeping, near a foot long, round. Leaves opposite, roundish, wooly. Flowers yellow, terminal. July. On bogs, &c.

CLASS XIX.

SYNGENESIA.

Flowers compound, except the last order :
receptacle and calyx common to many
sessile, monopetalous florets : antheræ
five in each floret, collected in a cylinder :
germen monospermous under each
floret.

I. POLYGAMIA ÆQUALIS.

Florets all hermaphrodite.

* *Florets ligulate.*

TRAGOPOGON. Common calyx of
eight leaves united at the base. Receptacle
naked. Down of the seed feathered,
with about thirty radii.

1. *Pratense.* *Yellow Goat's-beard.* Root conical,
anular, esculent. Stem erect, branched,
grassy, about two feet high. Leaves
long, carinated, narrow, intire, sessile,
grassy. Flowers yellow, large, single,
terminal ; calyx equal with the florets.
Shuts at noon. In meadows. &c.

2. *Porrifolium. Purple Goat's-beard.* Root long, thick, esculent. Stalks jointed, about two feet high. Leaves long, pointed, bluish. Flowers large, purple, single, terminal; calyx longer than the radius of the flower. In meadows, &c. In gardens called falfafie.

PICRIS. Calyx double; the interior imbricated, exterior of five leaves. Receptacle naked. Down of the seed feathered. Seed transversely furrowed.

1. *Echioides. Ox-tongue.* Stalks branched, about eighteen inches high. Leaves long, narrow, rough. Flowers yellow, in leafy heads; calyx surrounded by a large involucre. July, August. Annual.

2. *Hieracioides. Yellow Succory, or Rough Hawk-weed.* Stalk a foot and a half high, branched, hairy. Leaves embrace the stem, hairy, almost oval; those from the root indented. Flowers large, yellow, on long naked pedicles; calyx black, with yellow hairs, imbricated. Seeds curved. July. Annual. In corn-fields,

SONCHUS. Calyx imbricated, bellying, conical; scales narrow, numerous, unequal. Receptacle naked. Down of the seed simple, sessile, very soft. Seed oval, pointed.

1. *Palustris. Marsh Sow Thistle.* Stem erect, six or eight feet high, branched and hairy towards the top. Leaves firm, broad,

broad, half-pinnated, serrated, sharp-pointed. Flowers deep yellow, large, dispersed on the tops of the branches; calyx rough, August. In marshes.

2. *Arvensis. Tree Sow Thistle.* Differs so little from the last, that it ought certainly to be considered only as a variety. In corn-fields, &c.

3. *Oleraceus. Common Sow Thistle.* Stalk firm, erect, much branched. Leaves broad, embracing the stem, generally deeply sinuated, smooth or prickly at the edges. Flowers pale yellow, numerous, in a kind of umbel, terminal; calyx smooth. June—Sept. In corn-fields, roads, &c.

4. *Alpinus. Blue-flowered Sow Thistle.* Stalk erect, purplish, branched, or simple, from three to six feet high. Leaves large, smooth, sinuated; the extreme segment large, triangular. Flowers blue, on hairy viscid pedicles, in long spikes; calyx brown. *Wallis Northumb.*

LACTUCA. Calyx imbricated, cylindrical. Receptacle naked. Down simple, connected to the seed by a stem, or style,

1. *Virosa. Strong-scented wild Lettuce.* Stem firm, hollow, five feet high. Leaves large, indented, with a spinous middle rib. Flowers small, yellow, numerous, terminal. Seed black. Juice smells like opium. July, August. Biennial. In hedges, &c.

2. *Saligna.*

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2. *Saligna. Leaf wild Lettuce.* Stalk about a foot high. Leaves long, narrow, with prickly ridges; those below pinnatifid. Flowers yellow, very small; calyx tubular. August. On the banks of ditches.

PRENANTHES. Calyx slender, double, cylindrical, of few scales, rarely more than five. Receptacle naked. Down of the seed simple, on a short style. Florets in a single series.

1. *Muralis. Ivy-leaved wild Lettuce.* Stalk erect, about two feet high. Leaves deeply cut at the base; the extreme segment large, triangular, trilobed. Flowers small, yellow, on naked pedicles; floscules five. July. On walls, and in woods, &c.

LEONTODON. Calyx imbricated, oblong; interior scales linear, parallel, equal; exterior few, generally reflex. Down of the seed on a pedicle, and feathered. Receptacle naked. Perennial.

1. *Taraxacum. Dandelion.* Stalk erect, simple, hollow, eight or ten inches high. Leaves in a circle, on the ground, deeply indented, soft; segments triangular, the extreme one largest. Flower yellow, large, single, terminate; calyx reflex beneath. The whole plant full of bitter milk. April—July. Meadows, &c. common.

2. *Hispidum.*

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2. Hispidum. *Rough Dandelion*. Calyx intirely erect, rough, brown. Leaves rough; otherwise like the last. May—July.

3 Autumnale. *Yellow Devil's-bit*. Stem branched, leaning, about eight inches high. Leaves smooth, launce-shaped, intire, dentated. Flowers single, yellow, on scaly pedicels; scales of the calyx smooth, erect. Root bitten off, August. In meadows, &c.

HIERACIUM. Calyx imbricated, oval; scales erect, unequal. Receptacle naked. Down of the seed simple, feffle. Seed short, almost cylindrical, or conic, furrowed.

* *Stalk naked, bearing a single flower.*

1. Alpinum. *Mountain Hawkweed*. Stalk six or eight inches high, naked, somewhat scaly. Leaves oblong, dentated, hairy. Flower single, large; calyx black, hairy. In Wales. July.

2. Pilosella. *Common creeping Mouse-ear*. Stalks creeping; that which bears the flower erect, beset with black hairs, and swelling towards the top. Leaves oval, intire, downy white beneath. Flower pale yellow; calyx cylindrical, rough, black. May. Annual. In meadows, &c.

* * *Stalk naked, bearing several flowers.*

3. Dubium. *Mouse-ear Hawkweed*. Stalks simple, about a foot long, creeping; that which

which bears the flowers erect. Leaves green on both sides, beset with long hairs, lance-shaped, slightly serrated. Flowers four or five, small, pale yellow. July, August. Perennial. Westmoreland, &c.

4. *Auricula. Narrow-leaved Hawkweed.* Differs very little from the last, unless the flower-bearing stalk be constantly forked near the middle, of which I am not certain.

*** *Stalks leafy.*

5. *Murorum. French, or golden Lungwort.* Stalk branched, about two feet long, hairy, with one or two narrow leaves. Radical leaves oval, hairy, dentated. Flowers yellow, in a kind of umbel. July. On walls, in woods, &c.

6. *Paludosum. Succory-leaved Hawkweed.* Leaves embrace the stem, gradually tapering to a point, smooth, minutely dentated. Flowers large, yellow, in a panicle, terminal; calyx black, rough. July. In moist meadows.

7. *Sabaudum. Broad-leaved bushy Hawkweed.* Stalk firm, erect, about a yard high, purplish. Leaves elliptical, pointed, firm, hairy, dentated. Flowers yellow, numerous, from the axæ of the upper leaves. July, August. In woods and hedges, &c.

8. *Umbellatum. Narrow-leaved bushy Hawkweed.* Stalk firm, erect, three or four feet high. Leaves numerous, narrow, sharply dentated

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tated, or intire. Flowers yellow, on long pedicles, in umbels, terminal; calyx livid, smooth. Seed purple. July, August. In woods and hedges.

CREPIS. Calyx double; the exterior expanded; very short, deciduous; interior simple. Down of the seed feathered, and raised on a long pedicle.

1. *Fetida. Stinking Hawkweed.* Stalk branched, about a foot high. Leaves pinnated; pinnae alternately less, sharp-pointed. Flowers yellow, purplish on the outside, drooping before they blow. Smells like bitter almonds. June, July. In pastures, but rare.
2. *Tectorum. Smooth Succory Hawkweed.* Stalk hard, firm, striated, much branched, a foot high. Leaves smooth, sessile; those from the root pinnato-dentate; the rest lance-shaped, intire, or slightly dentate. Flowers yellow, very small; calyx somewhat hairy, clammy. Seed very long. June. Annual. In pastures, on walls, &c. every where.
3. *Biennis. Rough Succory Hawkweed.* Stalk thick, angular, rough, three or four feet high, branched, fragile. Leaves deeply sinuated, rough beneath. Flowers yellow, not large, on long pedicles, from the axæ of the leaves; calyx furrowed, beset with soft spines. July, August. In meadows, hedges, &c.

HYOSERIS

HYPOSERIS. Receptacle naked. Calyx of ten leaves, imbricated; scales erect, equal. Down of the seed simple, capillary, or obsolete.

1. *Minima. Small Swine's Succory.* Stalk naked, divided, about six inches high. Leaves narrow, intire. Flowers yellow, on forked pedicles, enlarging towards the top. May, June. In meadows and corn-fields about London.

HYPOCHÆRIS. Receptacle scaly. Calyx roundish, imbricated, bellying at the base. Down of the seed raised on a pedicle, and feathered.

1. *Maculata. Spotted Hawkweed.* Stalk generally simple, almost naked, near two feet high. Leaves hairy, oval, dentated, often with brown spots. Flower yellow, large, single, generally closed; calyx black, hairy, of large scales. July. On high ground.
2. *Glabra. Smooth Hawkweed.* Stalk branched, smooth, naked. Leaves sinuated, dentated, smooth. Flower yellow, small; calyx oblong; down partly sessile. July. In high pastures: about Bristol frequent.
3. *Radicata. Long-rooted Hawkweed.* Stalk naked, branched, near two feet high. Leaves sinuated, dentated, rough; denticles rectangular. Flower yellow, full, purplish on the outside; pedicles thickest near the flower; calyx a little hairy. May, June. In meadows, &c.

LAPSANA.

LAPSANA. Receptacle naked. Calyx imbricated, double, angular, with a few additional scales at the base; interior scales channelled. Seeds naked, oblong, striated.

1. **Communis.** *Nipplewort.* Stalk erect, from two to five feet high, branched at the top. Bottom leaves on long footstalks, deeply sinuated near the base; upper leaves lance-shaped, serrated. Flowers small, yellow, in umbels, terminal. June, July. In hedges, &c. frequent.

CICHORIUM. Receptacle scaly. Calyx double; the interior of eight scales forming a cylinder; exterior of five. Seeds without down, or very little.

1. **Intybus.** *Wild Succory.* Stalk about two feet high, simple, or sometimes branched. Leaves sinuated, dentated. Flowers blue, sessile, lateral. Scales of the exterior calyx fringed. July, August. On waste ground frequent.

* * *Florets tubular, equal, collected in a roundish head.*

ARCTIUM. Calyx globose, imbricated; scales reflex, hooked.

1. **Lappa.** *Burdock, or Clot-bur.* Leaves heart-shaped, not prickly, on foot-stalks. July, August. Biennial. In high roads, waste ground, &c.

SERRATULA. Calyx cylindrical, imbricated; scales pointed, but not hooked nor spinous.

1. **Tinctoria.**

1. *Tinctoria. Saw-wort.* Stalk erect, slender; branched at the top, three feet high: Leaves smooth, pinnatifid, serrated: Flowers purple, in umbels, terminal: Down of the seed glossy, with a brown or gold tinge. July. In woods, meadows, &c.
2. *Alpina. Mountain Saw-wort.* Root and stem woody; the latter from one to two feet high. Leaves numerous, triangular, long-pointed, substantial, dark green above, white beneath, serrated, with round intervals between the teeth, on foot-stalks. Flowers purple. Scales of the calyx very short, downy. July. On high mountains in Wales, and in the North of England.
3. *Arvensis. Corn Saw-wort, or Way Thistle.* Stem generally erect, branched, two or three feet high. Leaves sinuated, serrated, spinous; those above almost entire. Flowers pale purple; down very long. July. In high roads and corn-fields frequent.

CARDUUS. Calyx oval, imbricated; scales numerous, spinous, straight. Receptacle hairy. Down of the seed sessile, long.

* *Leaves decurrent.*

1. *Lanceolatus. Spear Thistle.* Stem branched; two feet high. Leaves pinnatifid, rough, spinous; segments divaricated. Flowers purple; heads sessile, terminal. Calyx hairy,

hairy, spinous. July. In high roads frequent.

2. Nutans. *Musk Thistle*. Stalk branched, two or three feet high, spinous, winged and downy. Leaves firm, glossy, deeply sinuated, waved, spinous, with a white rib. Flower large, purple, generally single, terminal, pendulous. Spines of the calyx yellow, stiff. Seed brown, glossy. Smells like musk. July. In dry pastures, &c.

3. Acanthoides. *Wetted Thistle*. Stalk two or three feet high, with downy spinous wings. Leaves deeply sinuated, waved, spinous, downy beneath. Flowers pale red, small, sessile. Spines of the calyx yellow. June, July. Annual. In roads, ditch-banks, &c.

4. Crispus. *Thistle upon Thistle*. Stalk brittle, branched, erect, three feet high, with long, narrow, spinous wings. Leaves sinuated, fringed, spinous, downy on the under side. Flowers small, aggregated, terminal, purple. Spines of the calyx soft. June. Roads, ditches, &c.

5. Palustris. *Marsh Thistle*. Stalk five or six feet high. Leaves narrow, dentated, spinous. Flowers purple, in bunches, erect, terminal. Calyx smooth. July. In fenney ground.

6. Dissectus. *English soft, or Gentle Thistle*. Stalk erect, two or three feet high. Leaves lance-shaped, hoary, without spines, dentated. Flowers purple, large, generally

rally single; calyx spinous. June, July.
In fens frequent.

* * *Leaves sessile.*

7. Marianus. *Milk Thistle*, or *Lady's Thistle*.
Stalk five feet high, firm, branched.
Leaves very large, pinnatifid, spinous,
waved, indented, streaked with white
veins. Flowers large, purple; calyx
spinous. July, in ditches, &c.
8. Eriophorus. *Woolly-headed Thistle*. Stalk about
six feet high, firm, branched. Leaves
a foot long, rough, downy beneath,
doubly pinnatifid; segments alternately
erect, spinous. Flowers purple, in large
round heads; scales of the calyx erect,
covered with silky down, and termi-
nated by a yellow spine. July. In
mountainous pastures, &c.
9. Helenioides. *Melancholy Thistle*. Stalk erect,
firm, five or six feet high, furrowed,
downy. Leaves numerous, lance-
shaped, white beneath, dentated, fringed
with soft spines. Flower single, large,
purple, terminal. June, July. In
Wales and the North of England.
10. Acaulis. *Dwarf Carline Thistle*. Stem scarce
an inch long. Leaves spread on the
ground, large, deeply divided, waved,
spinous. Flower purple, very large,
closing at night, and in rainy weather.
Root woody, branched, black. July.
In dry pastures.

ONOPOR-

ONOPORDUM. Calyx imbricated, bellying; scales numerous, spinous, prominent, downy. Receptacle naked. Down of the seed capillary.

1. *Acanthidum. Cotton Thistle.* Stalk five or six feet high, branched, winged, with dentated membranes. Leaves sessile, oval-oblong, variously sinuated; spines rigid, sharp. Flowers purple, large, terminal; spines on the lower part of the calyx, reflex. July. On waste ground, ditches, &c.

CARLINA. Calyx imbricated, radiate; interior scales long, coloured. Down of the seed branched, feathered.

1. *Vulgaris. Wild Carline Thistle.* Stalk erect, branched, purple, from three inches to a foot and half high. Leaves sessile, strong, downy, dentated, with two yellow spines to each denticle. Flowers purple, in a kind of umbel, terminal. The inner scales of the calyx yellowish. June. In dry pastures, &c.

*** *Flowers discoide. Florets tubular.*

BIDENS. Calyx imbricated. Corollæ quinquefid. Seed with two long, rough, aristæ. Sometimes there are a few ligulate radiant floscules. Receptacle scaly.

1. *Tripartita. Trifid Water-Hemp Agrimony.* Stalk much branched, two feet high. Leaves three or five on each foot-stalk, deeply serrated. Flowers yellow, terminal.

rally single; calyx spinous. June, July.
In fens frequent.

* * *Leaves sessile.*

7. Marianus. *Milk Thistle*, or *Lady's Thistle*.
Stalk five feet high, firm, branched.
Leaves very large, pinnatifid, spinous,
waved, indented, streaked with white
veins. Flowers large, purple; calyx
spinous. July, in ditches, &c.
8. Eriophorus. *Woolly-headed Thistle*. Stalk about
six feet high, firm, branched. Leaves
a foot long, rough, downy beneath,
doubly pinnatifid; segments alternately
erect, spinous. Flowers purple, in large
round heads; scales of the calyx erect,
covered with silky down, and termi-
nated by a yellow spine. July. In
mountainous pastures, &c.
9. Helenioides. *Melancholy Thistle*. Stalk erect,
firm, five or six feet high, furrowed,
downy. Leaves numerous, lance-
shaped, white beneath, dentated, fringed
with soft spines. Flower single, large,
purple, terminal. June, July. In
Wales and the North of England.
10. Acaulis. *Dwarf Carline Thistle*. Stem scarce
an inch long. Leaves spread on the
ground, large, deeply divided, waved,
spinous. Flower purple, very large,
closing at night, and in rainy weather.
Root woody, branched, black. July.
In dry pastures.

ONOPORDUM. Calyx imbricated, bellying; scales numerous, spinous, prominent, downy. Receptacle naked. Down of the seed capillary.

1. Acanthidum. *Cotton Thistle*. Stalk five or six feet high, branched, winged, with dentated membranes. Leaves sessile, oval-oblong, variously sinuated; spines rigid, sharp. Flowers purple, large, terminal; spines on the lower part of the calyx, reflex. July. On waste ground, ditches, &c.

CARLINA. Calyx imbricated, radiate; interior scales long, coloured. Down of the seed branched, feathered.

1. Vulgaris. *Wild Carline Thistle*. Stalk erect, branched, purple, from three inches to a foot and half high. Leaves sessile, strong, downy, dentated, with two yellow spines to each denticle. Flowers purple, in a kind of umbel, terminal. The inner scales of the calyx yellowish. June. In dry pastures, &c.

*** *Flowers discoide. Florets tubular.*

BIDENS. Calyx imbricated. Corollulæ quinquifid. Seed with two long, rough, aristæ. Sometimes there are a few ligulate radiant floscules. Receptacle scaly.

1. Tripartita. *Trifid Water-Hemp Agrimony*. Stalk much branched, two feet high. Leaves three or five on each foot-stalk, deeply serrated. Flowers yellow, terminal.

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Seeds erect. July, August. In fens, &c.

2. *Cernua. Whole-leaved Water-Hemp Agrimony.*

Differs from the last in the leaves being sessile, single, and the flower drooping, and larger.

EUPATORIUM. Calyx imbricated; scales few, erect. Florets quinquefid, five in each calyx. Style very long, deeply divided. Receptacle naked. Down of the seed feathered.

1. *Canabinum. Hemp Agrimony.* Stalk hairy, quadrangular, from three to seven feet high. Leaves serrated, lance-shaped, three on each foot-stalk. Flowers pale red, small, in large flat-topped clusters, terminal. June—September. Near rivers, &c.

ATHANASIA. Calyx imbricated, oval; scales compact. Receptacle scaly. Florets uniform, numerous.

1. *Maritima. Sea Cudweed.* Stalks numerous, white, a foot high. Leaves lance-shaped, intire, obtuse, notched, downy. Flowers yellow and white, in clusters, terminal. June, July. On the coast.

II. POLY-

II. POLYGAMIA SUPERFLUA.

Florets of the disk hermaphrodite; those of the radius female.

* *Difscide.*

TANACETUM. Calyx imbricated, hemispherical; scales acute. Radii obsolete; trisid. Receptacle convex, naked. Seed naked.

1. *Vulgare.* *Common Tansy.* Stem erect, branched, three or four feet high. Leaves bipinnated, serrated. Flowers yellow, in naked plane clusters, terminal. In mountainous pastures in the North.

ARTEMESIA. Calyx imbricated; scales rounded, connivent. Seeds naked. Radii 0. Receptacle plane, naked, or downy.

* *Procumbent before flowering.*

1. *Campestris.* *Field Southernwood.* Stems several, branched, woody, near two feet high. Leaves grey-green, multifid, on long foot-stalks. Flowers small, brown, in short spikes, on straight, lateral twigs. August. In mountainous pastures, &c.
2. *Maritima.* *Sea Wormwood.* Stem branched, about two feet high. Leaves multipartite, downy. Flowers brown, in drooping clusters, terminal; female floscules ternate. August. On the coast.

**** Erect : leaves composite.**

3. *Abinthium. Common Wormwood.* Stem hard, branched, from one to three feet high. Leaves dark green above, white, downy on the under side, multifid, composite. Flowers single, on pedicles, in unilateral spikes, pendulous. Receptacle woolly. August. On waste ground.
4. *Vulgaris. Mugwort.* Stalk firm, erect, three or four feet high, purple. Leaves pinatifid; segments long, pointed, cut in the edges, white, downy on the under side. Flowers purplish, erect, oval, sessile, in long spikes, on the tops of the branches. August. In hedges, &c.

GNAPHALIUM. Calyx imbricated; scales rounded, membranous, coloured, after flowering expanded. Down of the seed as long as the floscules, capillary, or feathered. Female flowers without corolla. Receptacle naked.

1. *Margaritaceum. American Cudweed.* Stem thick, branched at the top, downy, three or four feet high. Leaves long, narrow, pointed, downy beneath, alternate. Flowers terminal, in a loose kind of umbel. Scales of the calyx partly white, without gloss. Florets yellowish green. August. In meadows, &c.
2. *Sylvaticum. Upright Cudweed.* Stalks erect, simple, or rather thick set with very short branches, two feet high. Leaves very narrow, acute, downy beneath, erect. Flowers yellowish; females most
nume

numerous, on short branches all along the upper part of the stem. Calyx whitish, shining. August. In woods, heaths, &c.

3. *Uliginosum*. *Black-headed Cudweed*. Stem diffuse, branched, about eight inches high. Leaves long, narrow. Flowers yellowish, in black heads, terminal. August. In stagnant water, &c.

CONYZA. Calyx imbricated, oblong; scales acute, reflex. Receptacle naked. Down simple. Female floscules trifid, marginal.

- i. *Squarrosa*. *Plowman's Spikenard*. Stalk firm, erect, branched, two feet high. Leaves lance-shaped, dark green, wrinkled, downy beneath. Flowers purplish dead yellow, in loose clusters, terminal. Scales of the calyx purple-pointed. Female flowers numerous. July, August. In dry pastures, &c.

** *Radiate*.

ERIGERON. Calyx oblong, imbricated; scales long, narrow, erect. Female florets ligulate, erect, very narrow. Receptacle naked. Down of the seed simple, long.

- i. *Canadense*. *Canada Fleabane*. Stem erect, hairy, from two to four feet high, much branched. Leaves long, narrow, intire, pale green. Ligulate florets numerous, reddish white; tubular yellow. Flowers several on each short pedicle,

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from the axæ of the leaves, surrounding erect branches, in long loose spikes. August. In waste ground about London frequent.

2. Acre. *Blue-flowered Fleabane*. Stalk from three inches to two feet high, rough, purplish. Leaves long, narrow, waved, a little hairy. Flowers on alternate pedicles, single. Disk yellow; florets of the radius blue, about forty in number. July, August.

TUSSILAGO. Calyx cylindrical; scales equal, fifteen or twenty, equal with the disk. Receptacle naked, down simple. Corolla various.

1. Farfara. *Common Coltsfoot*. Stalk scaly, about eight inches high, supporting a single, yellow, radiate flower. Leaves heart-shaped, angular, dentated, radical, appearing after the flower. March. In moist ground.
2. Hybrida. *Long-stalked Butter-bur*. Stalk two or three feet high. Leaves very large. Flowers reddish, on very long branched pedicles, pendulous, in long loose spikes. Scales of the calyx in a double series, downy. Female florets numerous, small, tubular; pistillum long, horned; hermaphrodites one or two. April. In moist meadows, &c.
3. Patasites. *Common Butter-bur*. Stalks simple, purple, scaly, about a foot high, rising before the leaves. Florets pale red, tubular, all hermaphrodite, regular, from
ten

ten to twenty in number. Scales of the calyx in four series, reddish. Leaves, on long foot-stalks, heart-shaped, dentated, somewhat downy beneath, in May. Flowers in oval spikes. March, April. In moist meadows, &c.

SENECIO. Calyx cylindrical, double; scales equal and contiguous, so as to seem intire; those at the base few; apices dead. Receptacle naked. Floscules of the disk tubular; those of the radius, if there be any, ligulate.

1. *Vulgaris.* *Common Groundsel, or Simfon.* Stalk erect, thick, much branched, a foot high. Leaves sessile, smooth, sinuated; segments short, broad, minutely serrated. Flowers small, yellow, numerous, terminal, without radii. May. In cultivated ground, &c. every where.

* *Radii revolute.*

2. *Viscosus.* *Cotton Groundsel, or Stinking Groundsel.* Stalk erect, branched at the top, two feet high. Leaves sessile, pinnatifid, viscid, downy. Flowers yellow, in umbels, terminal; radii very short; scales of the calyx converge at the top. June. On sandy ground frequent.

3. *Sylvaticus.* *Mountain Groundsel.* Stalk erect, about a foot high. Leaves pinnatifid, dentated, somewhat hairy. Flowers small, yellow, on separate pedicles, in clusters, terminal. July. In woods, heaths, &c. frequent.

** *Radii*

* * *Radii straight : leaves pinnatifid.*

4. *Erucifolius.* *Hoary perennial Ragwort.* Stalk erect, downy, white, two feet high. Segments of the leaves narrow, divided at the ends, downy beneath. Flowers yellow, in clusters, terminal. July. In woods, hedges, &c.

5. *Jacobæa.* *Common Ragwort.* Stalks erect, thick, branched towards the top, three feet high. Leaves pinnatifid, or regularly dentated. Flowers yellow, on branched pedicles, in large clusters, terminal. July. In pastures frequent.

* * * *Radii straight : leaves not divided.*

6. *Paludosus.* *Marsh Ragwort, or Bird's Tongue.* Stalks erect, branched towards the top, four or five feet high. Leaves long, narrow, serrated, downy beneath. Flowers yellow, large. August. In fens, ditches, &c.

7. *Saracenicus.* *Broad-leaved Ragwort.* Stalk erect, simple, four or five feet high. Leaves numerous, firm, elliptical, dark green, serrated. Flowers several on each pedicle, erect, yellow, in clusters, terminal. July, August. In moist pastures, &c.

ASTER. Calyx imbricated ; lower scales reflex. Radii more than ten, tridentate. Receptacle naked. Down simple.

I. Tri-

1. *Tripolium. Sea Starwort.* Stalk firm, two or three feet high, branched at the top. Leaves lance-shaped, thick, intire, smooth. Flowers large, in clusters, terminal; disk yellow, radius blue. August. On the coast.

SOLIDAGO. Calyx imbricated; scales curved inward. Radii about five. Receptacle naked. Down simple. Flowers loose, in spikes parallel to the stem.

1. *Virgaurea. Golden Rod.* Stalks two or three feet high, branched. Leaves ovato-lance-shaped, serrated, on foot-stalks. Flowers yellow, numerous, in spikes from the axæ of the leaves, erect, alternate; radii trinervate, contracted at the apex. July. In woods, hedges, &c.

INULA. Calyx imbricated; scales loose, spreading, of equal length. Radii numerous, linear, intire. Antheræ with ten bristles at the base. Down simple.

1. *Helenium. Elecampane.* Root very large. Stalk five or six feet high, firm, erect. Leaves numerous, very large, embracing the stem, oval, downy beneath, serrated. Flowers large, yellowish-green; scales of the calyx very broad. July, August. In moist meadows, &c.

2. *Dysenterica. Middle Fleabane.* Stalk hairy, about two feet high. Leaves cordato-oblong, embracing the stem, downy, pointed, waved at the edge. Flowers yellow, numerous, single, on pedicles; scales

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scales of the calyx very numerous, hairy.
Radii tridentate. Smell and taste acrid.
August. Banks of rivers, ditches, &c.

3. Pulicaria. *Small Fleabane*. Stalk much branched, purple, near two feet long, often prostrate. Leaves waved, embracing the stem, foetid. Flowers yellowish, terminal and lateral, often without radii. Calyx very hairy. August, September. In stagnant water.

4. Crithmoides. *Golden Sampire*. Stalk firm, erect. Leaves linear, thick, three-pointed. Flower single, yellow, terminal. August. In meadows near the coast.

CINERARIA. Calyx simple, of many equal leaves. Radii ligulate, equal in number with the leaves of the calyx. Receptacle naked. Down simple.

1. Palustris. *Marsh Fleabane*. Stalk erect, branched, woolly. Leaves sessile, covering the stalk, sinuated, serrated, lance-shaped. Flowers yellow, numerous, terminal. August. In fens, &c.

2. Alpina. *Mountain Ragwort*. Stalk erect, branched at the top, a foot high. Leaves intire, woolly, sessile, lance-shaped. Flowers yellow, large, in umbels, terminal. June. In mountainous pastures, &c.

BELLIS. Calyx simple, hemispherical; scales in a double series, equal. Receptacle

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receptacle conic, naked. Down o. Radii numerous, intire. Seed oval.

1. *Perennis. Common Daisy.* Stalks naked, three or four inches high. Leaves oblong, obtuse, notched, spread upon the ground. Flowers single, yellow and white. March—October. In meadows, &c. every where.

*I have seen field mice and black slugs eat the flowers of the
Dish of the common Daisy.* 2 July 77—

CHRYSANTHEMUM. Receptacle naked. Down o. Calyx hemispherical, imbricated; scales compact; the interior ones gradually larger, and those in the margin membranous. Radii more than twelve, tridentate.

1. *Leucanthemum. Great Daisy, or Ox-eye.* Stalk erect, about a foot and a half high. Leaves embrace the stem, oblong, serrated. Flowers like the common daisy, but larger, one at the extremity of each branch. May. In pastures, &c.
2. *Segetum. Corn Marygold.* Stalk about two feet high, branched. Leaves embrace the stem, numerous, deeply laciniated. Flowers yellow, large, terminal. June, July. In corn-fields.

MATRICARIA. Calyx hemispherical, imbricated; scales linear, sub-equal, margin solid. Down o. Receptacle naked. Radii tridentate.

1. *Parthenium. Feverfew.* Stalks branched, erect, two or three feet high. Leaves composite, folioli oval, and deeply cut at the edges. Flowers white, with a yellow

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yellow disk, on naked branched pedicles, in clusters, terminal. June. On waste ground.

2. Maritima. *Sea Feverfew*. Receptacle hemispherical. Leaves bipinnated, subintertial, short, convex above, carinated beneath, dark green. July. On the coast.
3. Chamomilla. *Corn Feverfew*, or *Common Chamomile*. Stalks slender, branched, near two feet high. Leaves supradecomposite, segments narrow. Flowers white, with a yellow disk. Receptacle conical; scales of the calyx equal at the margin. June. In corn-fields.
4. Suaveolens. *Sweet-scented Feverfew*. Receptacle conic. Radii deflex. Scales of the calyx equal at the margin. Leaves in narrow segments, fragrant. May. On sandy ground frequent.

ANTHEMIS. Calyx hemispherical; scales linear, sub-equal. Receptacle scaly, conic. Downy. Radii more than five.

1. Maritima. *Sea Chamomile*. Stalks prostrate, branched, purplish. Leaves pinnated, dentated, subintertial, punctured, purplish. Flowers white, with a yellow disk, single, terminal; pedicles somewhat downy, and thicker towards the end. August. On the coast.
2. Nobilis. *Sweet-scented Chamomile*. Stalks procumbent, much branched, about a foot long.

long. Leaves pinnato-composite, linear, acute, somewhat downy. Flowers white, with a yellow disk, single, terminal; radii deflex. July, August. In pastures, &c.

3. *Arvensis. Corn Chamomile.* Stalk single, branched, about a foot high. Leaves in numerous, narrow, obtuse segments. Flowers large, white, with a yellow disk, without smell. July. In corn-fields, &c.

4. *Cotula. Stinking May-weed.* Stalk erect, branched, a foot and half high. Leaves pinnato-decomposited; pinnæ broader than the last. Flower white, with a yellow disk; radii numerous, tridentate. June, July. Annual. In corn-fields, &c.

5. *Tinctoria. Common Ox-eye.* Stem much branched, two feet high. Leaves pinnatifid; segments serrated, downy beneath. Flowers intirely yellow, large, in clusters, terminal. July. In meadows, &c.

ACHILLEA. Calyx oval, imbricated. Radii trinervate, tridentate, short, broad, few. Receptacle scaly. Down o.

1. *Millefolium. Yarrow, or Milfoil.* Stalk erect, about a foot high. Leaves doubly pinnated; pinnæ numerous; pinnulæ trifid, quinquifid. Flowers white, often reddish, in a kind of dense umbel, terminal. May—July. In meadows and pastures very common.

2. *Ptar-*

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2. *Ptarmica*. *Sneeze-wort*. Stalk firm, erect, branched, two feet high. Leaves long, narrow, pointed, serrated. Flowers small, white, in a loose kind of umbel, terminal; calyx a little hairy; radii not more than eleven. August. In moist woods, &c.

III. POLYGAMIA FRUSTRANEA.

Florets of the disk hermaphrodite; those of the radius neuter.

CENTAUREA. Calyx imbricated. Floscules tubular; those in the radius larger, and irregularly divided. Receptacle bristly. Down simple.

* *Scales of the calyx fringed.*

1. *Cyanus*. *Blue-bottles*. Stalk firm, erect, slender, ribbed, somewhat downy, about a foot and half high, branched towards the top, with long, narrow, sessile leaves; those below are dentated. Flowers blue, large, terminal. July. Annual. In corn-fields.
2. *Scabiosa*. *Great Knapweed*, or *Maifellon*. Stalk hard, erect, branched, two or three feet high. Leaves alternate, pinnatifid; segments lance-shaped. Flowers purple, in roundish compact heads; single, on long naked pedicles; fringe of the scales brown. June, July. In corn-fields, &c.

3. *Jacea*.

3. *Jacea*. *Common Knapweed*. Stalk erect, about a foot high, with angular branches. Leaves lance-shaped; those below sinuated, dentated. Flowers purple, in roundish heads; scales semicircular, with a black fringe. July, August. In meadows, &c.

* * *Scales of the calyx spinous.*

4. *Calcitrapa*. *Star Thistle*. Stalk branched, about two feet long, not erect. Leaves soft, hairy, pinnatifid, dentated, sessile. Flowers purple, in sessile, lateral heads; external florets form a regular radiated circle. July. In meadows, &c.
5. *Solstitialis*. *St. Barnaby's Thistle*. Stalk erect, about two feet high. Leaves on the stem pinnatifid; those on the branches decurrent, lance-shaped. Flowers yellow, in small heads, terminal; scales of the calyx with double spines. July. In hedges, not common.

IV. POLYGAMIA NECESSARIA.

Florets of the disk male; those of the radius female.

FILAGO. Calyx imbricated. Hermaprodite florets in the disk numerous; feminine scarce visible, among the scales of the calyx. Receptacle naked. Downy.

1. *Germanica*. *Common Cudweed*. Stem erect, forked, branched, with many leaves,

near a foot high. Leaves long, narrow downy. Flowers brown, in round downy heads, at the division of the branches. Calyx pentagonal; scales glossy, acute. June, July. In meadows, &c.

2. Montana. *Leaf Cudweed*. Stalk erect, forked, branched, from three to six inches high. Leaves numerous, downy, very narrow, half an inch long. Flowers in conical heads, axillary and lateral. June, July. In sandy meadows, &c.

3. Gallica. *Corn Cudweed*. Stalk forked, erect, much branched, three inches high. Leaves very narrow. Flowers pyramidal, axillary, numerous. June, July. In corn-fields.

VI. MONOGAMIA.

Flowers simple.

JASIONE. Calyx of ten leaves. Corolla of five petals, regular. Capsule pentagonal, below the germen, bilocular.

- Montana. *Hairy Sheep's Scabious*. Stalks several, branched, not quite erect, about a foot high. Leaves on the ground numerous, long, narrow, obtuse, waved, serrated, hairy. Flowers blue, on pedicels, in roundish heads, on long naked branches. June, July. Heath's, pastures, &c.

LOBELIA.

LOBELIA. Calyx quinquifid. Corolla monopetalous, irregular. Capsule below the germen, bilocular.

1. Dortmanna. *Water Gladiole*. Stalk naked, or with few leaves, about two feet high. Leaves from the root twelve or fourteen in number, narrow, bilocular, intire. Flowers pale purple, in loose spikes, pendulous. July, August. In the lakes in the North.

VIOLA. Calyx of five leaves, short. Corolla of five petals, irregular; the upper one notched, and ending in a spur behind; the lateral pair obtuse; the two under petals broader. Stamina 5. Style 1. Capsule above the germen, unilocular, trivalve.

* *Without stem.*

1. Hirta. *Hairy Violet*. Leaves heart-shaped, hairy. Without scions. Flowers pale blue, large, inodorous. April. In hedges, &c.
2. Palustris. *Marsh Violet*. Leaves smooth, reniform, two or three on each foot-stalk. Flowers pale blue, small, inodorous. June. In marshy ground.
3. Odorata. *Purple sweet Violet*. Leaves heart-shaped, notched. Flowers deep purple, single. Creeping scions. March, April. In hedges.

near a foot high. Leaves long, narrow downy. Flowers brown, in round downy heads, at the division of the branches. Calyx pentagonal; scales glossy, acute. June, July. In meadows, &c.

2. Montana. *Least Cudweed*. Stalk erect, forked, branched, from three to six inches high. Leaves numerous, downy, very narrow, half an inch long. Flowers in conical heads, axillary and lateral. June, July. In sandy meadows, &c.

3. Gallica. *Corn Cudweed*. Stalk forked, erect, much branched, three inches high. Leaves very narrow. Flowers pyramidal, axillary, numerous. June, July. In corn-fields.

VI. MONOGAMIA.

Flowers simple.

JASIONE. Calyx of ten leaves. Corolla of five petals, regular. Capsule pentagonal, below the germen, bilocular.

- Montana. *Hairy Sheep's Scabious*. Stalks several, branched, not quite erect, about a foot high. Leaves on the ground numerous, long, narrow, obtuse, waved, ferrated, hairy. Flowers blue, on pedicles, in roundish heads, on long naked branches. June, July. Heaths, pastures, &c.

LOBELIA.

LOBELIA. Calyx quinquifid. Corolla monopetalous, irregular. Capsule below the germen, bilocular.

1. Dortmanna. *Water Gladiol.* Stalk naked, or with few leaves, about two feet high. Leaves from the root twelve or fourteen in number, narrow, bilocular, intire. Flowers pale purple, in loose spikes, pendulous. July, August. In the lakes in the North.

VIOLA. Calyx of five leaves, short. Corolla of five petals, irregular; the upper one notched, and ending in a spur behind; the lateral pair obtuse; the two under petals broader. Stamina 5. Style 1. Capsule above the germen, unilocular, trivalve.

* *Without stem.*

1. Hirta. *Hairy Violet.* Leaves heart-shaped, hairy. Without scions. Flowers pale blue, large, inodorous. April. In hedges, &c.
2. Palustris. *Marsh Violet.* Leaves smooth, reniform, two or three on each foot-stalk. Flowers pale blue, small, inodorous. June. In marshy ground.
3. Odorata. *Purple sweet Violet.* Leaves heart-shaped, notched. Flowers deep purple, single. Creeping scions. March, April. In hedges.

* * *With Stems.*

4. *Canina. Dog's Violet.* Stalks procumbent, and then rising upwards, leafy. Leaves heart-shaped, pointed. Flowers inodorous, pale blue, single, on pedicles from the branches. April. On heaths, &c.
5. *Biflora. Round-leaved yellow Alpine Violet.* Stalks three or four inches long, not erect, with few branches. Leaves reniform, serrated. Flowers yellow, two, small, on pedicles. On mountains in Wales, &c.
6. *Tricolor. Pansies, Heart's-Ease, or three Faces under a Hood.* Stalks diffuse, procumbent, triangular. Leaves oblong, cut at the edges; stipulæ dentated. Flowers purple, yellow and light blue; inodorous. Annual. May—September.
7. *Leutca. Yellow Violet.* Stalks erect, from an inch to a foot long. Leaves oval, notched; stipulæ dentated. Flowers large, yellow, on long pedicles. Perennial. May—August. On the mountains in the North and Wales.

IMPATIENS. Calyx of two leaves, small, coloured, deciduous. Corolla of five petals, irregular, with a spur behind. Stamina five, very short. Style 6; stigma simple. Capsule unilocular, quinquevalve.

- 1. *Noli tangere. Touch me not, or Yellow Balsamine.* Stem erect, branched, tender, about two feet high, swollen beneath the branches. Leaves oval, serrated, on long foot-stalks. Flowers yellow, the lateral petals spotted with red, pendulous, two on each pedicle, numerous, from the axæ of the leaves. August. On the banks of lakes, &c. in the North.

R 3

CLASS

CLASS XX.

GYNANDRIA.

Stamina growing either upon the style, or on the receptacle elongated in the form of a style, supporting both stamina and pistillum.

I. DIANDRIA.

Germen below the corolla, twisted. Petals five; the two interior usually meet and form a helmet, the under lip of which becomes a nectarium, and supplies the place of a pistillum and sixth petal. The style, adhering to the inner margin of the nectarium, is scarce distinguishable. Filaments two, very short. Capsule unilocular, trivalve. Seeds numerous, very small.

ORCHIS. Calyx 0. Nectarium corniform, behind the flower, fixed to the receptacle between the petals. Leaves vaginal. Flowers in spikes. Stalk simple, single.

* *Bulbs of the root not divided.*

- I. Bifolia. *Butterfly Orchis*. Root double, conical. Stalk about a foot and a half high, scaly. Leaves generally two, long,

long, and two or three inches broad. Flowers white, yellowish, in long thin spikes; spur very long and slender; petals spreading, fragrant. May, June. In wet pastures, &c.

2. *Pyramidalis. Purple late Orchis.* Root a double bulb. Stalk a foot high. Leaves radical, about four inches long, and half an inch broad; floral leaves shorter than the flower. Flowers pale purple, in short compact spikes; lip of the nectarium trifold; spur long. June, July. In dry, chalky pastures.

Coriophora. Less Lizzard, or Goat Orchis. Root a double bulb. Stalk a foot long. Leaves half an inch broad. Flowers greenish, white, or purplish; lip of the nectarium trifold, reflex, notched; petals connivent; horn short. July.

3. *Morio. Female Fool's Orchis.* Root a double bulb. Stalk from six inches to a foot long. Leaves long, narrow, pointed. Flowers white, or red, or violet, few, on a short thin spike; lip of the nectarium quadrifold, notched; spur obtuse; petals all connivent. May, June. In wet meadows.

5. *Mascula. Male Fool's Orchis.* Bulbs large. Stalk a foot high. Leaves broad, elliptical, generally spotted with black. Flowers large, purple, on long loose spikes; dorsal petals reflex; lip of the nectarium quadrifold, notched; spur horizontal, obtuse. May. In meadows, &c.

6. *Ustulata. Little purple Orchis.* Bulb double, small. Stalk eight or ten inches high. Leaves obtuse. Flowers small, in a short dense spike, purple and white; lip of the nectarium quadrifid, with red spots; petals distinct; spur obtuse, short. May, June. In dry pastures, &c.

7. *Militaris. Man Orchis.* Bulb double. Stalk a foot high. Leaves not spotted, elliptical, obtuse. Flowers greyish white, or dark purple; petals confluent; lip of the nectarium quinquifid, with purple spots; spur obtuse. June. On chalk hills.

* * *Bulbs palmated.*

8. *Latifolia. Male-handed Orchis.* Stalk hollow, a foot and half high. Leaves broad, elliptical. Spike long, dense, obtuse. Floral leaves longer than the flower. Flowers purple; lateral petals curled upward; lip of the nectarium trilobed, ferrated; lateral lobes reflex. Spur conical, very thick. May, June. In meadows, &c.

9. *Maculata. Female-handed Orchis.* Root spreading. Leaves spotted. Three exterior petals erect. Lip of the nectarium trifid; lateral lobes large, notched, plane. June. In wet meadows, &c.

10. *Conopsea. Red-handed Orchis.* Stalk a foot high, or more. Leaves long, not an inch broad. Spike very long. Floral leaves broad at the base, narrow at the point.

point. Flowers red; two petals spreading. Lip of the nectarium trifid; spur very slender, longer than the germens. June. In meadows, &c.

* * * *Bulbs fasciculated.*

- II. Abortiva. *Purple Bird's-nest.* Root fibrous, interwoven. Stalk purple, near a foot long. Leaves purplish, small. Flowers violet; lip of the nectarium oval, intire. May. In dry meadows.

SATYRIUM. Calyx o. Nectarium scrotiform, behind the flower. Leaves vaginal. Flowers on a spike.

1. Hircinum. *Lizzard Flower, or Goat Orchis.* Root a double undivided bulb. Stalk two feet high. Leaves large, pointed. Flowers greenish white, purple within. Lip of the nectarium trifid; the middle segment very long, like a beard. Spur very short, obtuse. June, July. On chalk hills.
2. Viride. *Frog Satyrion, or Orchis.* Root palmated. Leaves oblong, obtuse. Stalk a foot high. Flowers large, yellowish green, with some purple. Spur short, broad. May, June. In dry pastures, &c.
3. Albidum. *White Satyrion.* Roots numerous, cylindrical, distinct. Leaves elliptical, obtuse, some on the stem. Spike long, compact. Flowers with three large white and two smaller greenish yellow petals. Spur very short, tumid. Lip of the nectarium trifid, acute; middle segmen

segment largest. June. In moist meadows.

4. Repens. *Bastard Orchis*. Bulbs fibrous, slender, branched. Stalk a foot high. Radical leaves oval, like those of the common plantain; on the stem very small. Spike dense, unilateral. Flowers greenish yellow; petals four, hairy.

OPHRYS. Calyx o. Nectarium pendent, longer than the petals, carinated behind. Two of the five petals exterior. Leaves vaginal. Flowers spicate.

* *Bulbs branched.*

1. Nidus Avis. *Bird's Nest*. Bulbs fibrous, imbricated. Stalk a foot high, with a few brown scales, without leaves. Flowers brown. Spike long. April, May. In woods, &c.
2. Ovata. *Common Twyblade*. Bulb fibrous, imbricated. Stalk eight or ten inches high, with two opposite oval leaves, two or three inches from the ground. Spike long. Flowers green. Lip of the nectarium bifid. May, June. In moist woods, &c.
3. Spiralis. *Triple Lady's Traces*. Bulbs oblong, aggregated. Stalk eight inches high, or more. Leaves long, acute, some on the stalk. Spikes generally unilateral. Flowers yellowish white. Lip of the nectarium undivided, notched. Fragrant. August. In dry pastures.

4. Cordata.

4. *Cordata. Least Twyblade.* Bulb fibrous. Stalk five or six inches high, with two opposite, heart-shaped leaves. Flowers whitish. Lip of the nectarium bifid. July. On turf bogs in the North.

* * *Bulbs round.*

5. *Lilifolia. Dwarf Orchis.* Bulbs roundish. Stalk naked. Leaves lance-shaped, half the length of the stem. Lip of the nectarium intire. Dorsal petals linear. July. On bogs, &c.

6. *Paludosa. Least Orchis.* Bulbs oval, curved. Stalk pentagonal, almost naked. Radical leaves three or four, alternate, rough at the apex. Flowers yellowish green, in a cluster, terminal; upper petal erect, arched. Lip of the nectarium reflex, intire. Bulbs catenary.

7. *Monorchis. Yellow, or Musk Orchis.* Bulb single. Stalk naked, slender, from four to eight inches high. Radical leaves two or three. Flowers green-yellow. Spur o. July. In dry pastures, but not frequent.

8. *Anthropophra. Green Man-Orchis.* Bulb double. Stalk a foot high, or more, with some leaves. Radical leaves long, narrow. Flowers greenish. Lip of the nectarium tripartite; middle segment longer, bifid. Spur o. June. On chalk hills.

9. *Insecti-*

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9. Insectifera. *Fly Orchis*, *Bee Orchis*. Bulb double. Stalk two feet high, beset with long narrow leaves. Spike long, thin. Flowers resemble a fly, or bee. Lip of the nectarium quadrifid, or quinquifid. June. In dry pastures.

SERAPIAS. Calyx o. Petals five. Nectarium the length of the petals, oval, gibbous; base excavated, bifid; lip oval. Spur o. Bulbs fibrous.

1. Helleborine. *Bastard Hellebore*. Stalk two feet high, smooth. Leaves oval, perfoliate, alternate, large. Flowers on a loose spike, brownish green, with a purplish spot at the bottom of the nectarium, or deep dusky purple. Lip obtuse, notched, equal with the petals. Fruit pendulous. July, August. In woods, hedges, &c.
2. Longifolia. *Long-leaved Bastard Hellebore*. Stalk two feet long. Leaves a little perfoliate, long, narrow, pointed. Flowers white, with yellow spots and lines within, on thin loose spikes; lip of the nectarium obtuse, shorter than the petals; bractæ scarce so long as the flowers. August. In woods, &c.

II. POLYANDRIA.

Stamina many.

ARUM. Calyx a spatha or half cone of one leaf, rolled up at the bottom, pointed at the top, large, coloured within. Spadix simple,

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simple, clavated, coloured, naked above,
female below, male in the middle. Co-
rolla o.

1. *Maculatum. Wake-Robin, or Cuckow-pint.*
Leaves glossy, large, arrow-shaped, often
spotted, intire. Cone white, erect. Ber-
ries red, in a naked cluster, on the top
of the stalk. May. In hedges fre-
quent.

ZOSTERA. Spadix linear, bearing fruit
on one side only. Calyx o. Corolla o.
Stamina alternate. Seeds single, alternate.

1. *Marina. Grass Wrack.* Leaves very long,
plane, narrow, growing under water,
and floating with the tide. On the
coast.

CLASS

CLASS XXI.

MONOECIA.

Male and female flowers on the same plant.

I. MONANDRIA.

Male flowers with one stamen.

ZANNICHELLIA. *Male*: Calyx o.
Corolla o. *Female*: Calyx of one leaf.
Corolla o. Pistilla 4. Seeds 4.

1. Palustris. *Horned Pondweed*. Stalks jointed, with many branches. Leaves opposite, long, narrow, pointed. Flowers in the axæ of the leaves, male and female together. July. In ditches, &c. frequent.

II. DIANDRIA.

Male flowers with two stamina.

LEMNA. *Male*: Calyx of one leaf, obtuse, intire. Corolla o. *Female*: Calyx as in the male. Corolla o. Style 1. Capsule unilocular. Root a, perpendicular, conical, hollow thread. N.B. In the *Genera Plantarum*, Linnæus makes one of the flowers hermaphrodite instead of male: if so, it belongs

longs to the class *Polygamia*. The flowers are so minute and fugitive as very rarely to be seen.

1. *Trifulca*. *Ivy-leaved Duck's Meat*. Stalk branched. Leaves lance-shaped, on pedicels, numerous, swimming on the water. Roots numerous, suspended. May, June. In pools and ditches.
2. *Minor*. *Least Duck's Meat*. Leaf single, sessile, somewhat oval, very small, with a single root, swimming loose in the water. June. On ponds frequent.
3. *Polyrhiza*. *Great Duck's Meat*. Leaves single, larger, thick, somewhat oval, green above, deep purple beneath, with several roots to each, swimming loose like the last. June, July. In ditches.

III. TRIANDRIA.

Male flowers with three stamina.

TYPHA. *Male*: in a cylindrical compact catkin on the top of the stalk; proper calyx of three very narrow leaves. Corolla o. *Female*: on a catkin below the male. Calyx a kind of radiate down. Corolla o. Seed single.

1. *Latifolia*. *Great Cat's-tail*, or *Reed-mace*. Culm six feet high, firm, jointed. Leaves thick, convex, two or three feet long, not quite an inch broad. Male and female,

female catkin near each other. July.
On the banks of rivers.

2. *Angustifolia*. *Narrow-leaved Cat's-tail*. Leaves semicylindrical. Male and female spike remote, and slender. July. In pools and ditches.

SPARGANIUM. *Male*: numerous, collected in a roundish head, compact, imbricated; proper calyx of three leaves, linear, deciduous; corolla o. *Female*: like the male. Fruit a dry berry, containing two hard seeds.

1. *Erectum*. *Great Bur Reed*. Culm firm, branched, two feet high. Leaves triangular, long, succulent, not quite half an inch broad. Male heads smaller than the female. July. Banks of rivers, ditches, &c.

2. *Natans*. *Least Bur Reed*. Culm simple, short. Leaves flat, a foot long, swimming, obtuse. Heads few. July. In pools and slow rivers, but rare.

CAREX. *Male*: catkin imbricated, oblong; calyx of one leaf, lance-shaped, acute, concave; corolla o. *Female*: like the male. Nectarium inflated, tridentate. Stigmata three. Seed single, triangular.

* *Spike*

* *Spike single, simple.*

1. *Capitata.* *Round-headed Carex, or Cyperus Grass.* Culm triangular, slender, short. Leaves very narrow. Spike oval; male flowers at the top. June. On wet commons.

2. *Pulicaris.* *Flea Carex, or Flea Grass.* Culm and leaves capillary. Capsules oblong, pointed, reflex, resembling fleas. June. On Hampstead heath, &c.

** *Male and female on the same spikes, or spiculæ.*

3. *Arenaria.* *Sea Carex.* Spike composite. Culm triangular, about two feet high. Lower spiculæ more remote, with a longer leaf. Root creeping. June, July. In the sand on the sea-shore.

4. *Leporina.* *Naked Carex.* Culm naked, two feet high. Spike composite; spiculæ five or eight, compact, alternate, oval, sessile, broad, compressed, soft, short. Scales between the spiculæ imbricated, triangular, grey, with a yellow nerve. June, July. In wet meadows.

5. *Brizoides.* *Rough Carex.* Culm triangular, rough, a foot and half high. Leaf very long and narrow. Spike composite, distich, naked; spiculæ cylindrical, alternate, acute, contingent, compact, white or greenish. June. In fens, &c.

6. *Vulpina.* *Great Carex.* Culm triangular, naked, about a foot high. Leaves very long, narrow, sharp edged, smooth.

Spike supradecomposite, an inch long, compact above, bearded; spiculæ three to six, sessile, broad, male above. July. Banks of rivers.

7. *Muricata. Prickly Carex.* Culm naked, triangular, six or eight inches high. Leaves narrow, harsh, the length of the culm. Spike loose; spiculæ sessile, distinct, spinous. June. In moist woods, &c.
 8. *Remota. Long-leaved Carex.* Culm weak, branched, leafy. Leaves very narrow and long. Spikes simple, small, in the axæ of the leaves, sessile; scales white, with a greenish line. Capsules ten or twelve in each spike. August. In moist woods, &c.
 9. *Canescens. Grey Carex.* Culm naked, compressed. Spiculæ remote, sessile, obtuse, compact, turgid. Capsules oval, obtuse. May—August. In hedges, moist woods.
 10. *Paniculata. Panicked Carex.* Culm triangular, harsh, three feet high. Leaves harsh, narrow. Panicle long, loose, brown. June, July. On bogs, &c.
- *** *Male and female on different spikes; the latter sessile.*
11. *Flava. Yellow Carex.* Culm triangular, a foot high. Leaves long, smooth. Male spike, cylindrical, slender; females two or three. Capsules acute, recurved, rigid. June. In wet meadows, bogs, &c.

12. *Pedata. Bird's foot Carex.* Culm naked, six inches high. Leaves narrow. Male spike terminal, slender, acute, red-brown; female spikes two, three or four, with few scales, not closely imbricated, containing about seven floscules.
13. *Pilulifera. Round-headed Carex.* Spikes sessile, terminal, compact, globular; male spike oblong. Leaves very slender. June, July. In meadows, &c. frequent.
14. *Saxatilis. Vernal Carex.* Culm rotundo-triangular, naked, a foot high. Leaves narrow. Spikes three, oval, sessile, alternate; male oblong; female black. April, May. In mountainous pastures.
- **** *Male and female on different spikes; the latter on pedicles.*
15. *Pallescens. Pale Carex.* Culm leafy, a foot high. Leaves narrow, harsh. Spikes terminal, compact; male spike slender, acute, erect, greenish white; females yellowish, drooping, oval, imbricated, with capsules obtuse, compact. June. In moist meadows, &c.
16. *Pseudo Cyperus. Bastard Carex.* Culm three feet high. Leaves spongy, large, near an inch broad. Spikes yellowish; male spike two inches long, with hairy, pointed scales; females two or three, pendent, with capsules double bearded. July. Banks of ditches.
17. *Distans. Loose Carex.* Culm triangular, a foot and half high. Leaves soft.

Spikes very distant from each other; male spike terminal, obtuse, not quite an inch long; females two or three, on short pedicles, in the *alæ* of the leaves. June. On bogs, &c.

***** *Male and female on different spikes; male several.*

18. *Acuta. Brown Carex.* Culm about six inches long, triangular. Spikes brown or black; females long and slender, alternate, on short pedicles, except the lower ones. May. On the banks of rivulets, &c.

19. *Vesicaria. Bladder Carex.* Culm triangular, four or five feet high. Leaves narrow, two feet long, and very harsh. Male spikes two or three, very slender, two inches long, brown; females two to four, yellow. Capsules inflated, pointed, with a bifid neck. June. In fens, &c. frequent.

20. *Hirta. Hairy Carex.* Soft and hairy. Spikes remote, erect; males two or three, compact; females three, loose, on short pedicles, in the *alæ* of the leaves. Capsules hairy, conical, bifid. June. In wet meadows, &c.

AMARANTHUS. *Male:* Calyx of three leaves, coloured. Corolla o. *Female:* the same. Capsule unilocular, opening horizontally. Seed 1.

1. *Blitum. Least Blite.* Stalk weak, diffuse, succulent. Leaves reddish green, oval, notched

MONOECIA. TETRANDRIA. 261

notched at the end. Flowers sessile, in clusters, round the stalk. August. Annual. Among rubbish, &c.

IV. TETRANDRIA.

Male flowers with four stamina.

BETULA. *Male*: Calyx of one leaf, trifid, trifloral; corolla quadripartite. *Female*: Calyx of one leaf, sub-trifid, bifloral. Catkin imbricated, cylindrical. Seed oval, winged.

1. Alba. *Birch tree*. Bark white, smooth, glossy. Leaves, on long foot-stalks, oval, pointed, serrated, glossy.

2. Alnus. *Alder tree*. Not large, nor erect. Bark smooth. Leaves round, without point, serrated, clammy, nervous. Cones brown. July. Near water frequent.

BUXUS. *Male*: Calyx of three leaves; petals two. *Female*: Calyx of four leaves; petals three; styles three, very short. Capsule with three beaks, trilocular. Seeds two.

1. Sempervirens. *Box*. A low shrub. Leaves oval, glossy, thick. Flowers greenish white. April. In woods, but rare.

URTICA. *Male*: Calyx of four leaves. Corolla o. Nectarium minute, central, urn-fashioned. *Female*: Calyx bivalve. Corolla o. Seed single, oval, glossy.

1. *Pilulifera. Roman Nettle.* Stalk branched, two or three feet high. Leaves opposite, oval, serrated, stinging. Fruit globose. August. On waste ground,
2. *Urens. Less Nettle.* Stalk a foot high. Leaves roundish, deeply serrated, opposite, burning. August. In gardens, waste grounds, &c.

V. PENTANDRIA.

Male flowers with five stamina.

XANTHIUM. *Male* flowers composite. Common Calyx imbricated. Corollæ monopetalous, tubular, quinquefid. *Female:* Calyx involucrem of two leaves, containing two flowers. Corolla 6. Drupa dry, prickly. Nucleus bilocular.

1. *Strumarium. Less Burdock.* Stalk a foot and half high, thick, often spotted. Leaves heart-shaped, lobed, on long footstalks. Flowers male and female many together, in the axæ of the leaves. August, September. Annual. On waste ground, but rare.

VI. POLYANDRIA.

Male flowers with many stamina.

CERATOPHYLLUM. *Male:* Calyx of many segments. Corolla 0. Stamina very minute, sixteen to twenty. *Female:* Calyx like the male. Corolla 0. Pistillum single; style 0; stigma obtuse, oblique. Seed single, naked.

1. De-

1. *Demersum.* *Horned Pondweed, or Water Milfoil.* Stalk a foot long, much branched. Leaves, several together in whirls, twice forked, harsh, thick. Branches collected at the top into a thick nest. July. In ditches, &c. under water, frequent.

MYRIOPHYLLUM. Calyx of four leaves. Corolla o. Stamina 8. Pistilla 4; style o. Seeds 4, naked.

1. *Spicatum.* *Spiked, or feathered, Water Milfoil.* Stalks round, hollow, jointed, striated, branched; a foot and half long. Leaves feathered, five from each joint. Those stalks which bear the flowers have no leaves. Male flowers on spikes, in small distant clusters. June, July. In stagnant water frequent.
2. *Verticillatum.* *Less Water Milfoil.* Resembles the last, except that all the flowers grow in whirls, in the axæ of the leaves. July. In ditches, &c. frequent.—
N. B. Sometimes the flowers are hermaphrodite.

SAGITTARIA. Calyx of three leaves. Petals three. Stamina generally 24. Pistilla very numerous; styles very short. Seeds many, naked. Male flowers above.

1. *Sagittifolia.* *Arrow-head.* Stalks thick, spongy, striated. Leaves arrow-shaped, on long foot-stalks. Flowers white, large, generally three together, on single pedicles. June. In ditches, &c.

POTERIUM. Male and female flowers on the same spike, the latter uppermost. Calyx of three leaves, coloured, soon falling off. Corolla of four segments, united only at the base. Stamina 30 or 40, long, slender. Pistilla two. Fruit a berry, formed of the tube of the corolla.

1. *Sanguiforba. Burnet.* Some of the flowers hermaphrodite; stalk angular, a foot high, brown. Leaves pinnated, pinnæ about 10 pair with an odd one, serrated; middle rib hairy. Flowers purplish, on small oval spikes. July. On chalk hills, &c.

QUERCUS. Male flowers on a soft catkin. Calyx quinquefid or quadrid. Corolla o. Stamina 5—10. Female flowers sessile, in a bud. Calyx intire, hemispherical, rough. Corolla o. Style single. Seed oval, single.

1. *Robur. Oak.* Leaves oblong, broadest at the top, deeply sinuated, angles obtuse, deciduous. April.

FAGUS. Male flowers on a catkin: Calyx campanulate, quinquefid. Corolla o. Stamina about 12. Females in a bud: Calyx with 4 teeth. Corolla o. Styles 3. Capsule with soft spines, and 4 valves. Seeds two.

1. *Castanea. Chestnut tree.* Large, diffuse. Leaves lance-shaped, pointed, sharp-serrated, smooth

MONOECIA MONADELPHIA. 265

smooth beneath. May. In Kent frequent.

2. *Sylvatica*. *Beech*. Large tree. Bark smooth, white. Leaves oval, waved, scarce serrated. Catkin round. May.

CARPINUS. *Male* flowers on a cylindrical catkin. *Females* on an oblong catkin. Calyx a fringed scale. Corolla o. Stamina twenty. Styles four. Fruit oval, angulated.

1. *Betulus*. *Hornbeam*. Bark smooth, white. Leaves oval, pointed, sharp-serrated, nervous, smooth. May.

CORYLUS. *Male*: Calyx a trifid scale, containing a single flower. Corolla o. Stamina eight. *Female*: Calyx of two leaves, lacerated. Corolla o. Styles two. Nut oval. Male flowers on a long catkin, female sessile, in a bud.

1. *Avellana*. *Hazel-nut tree*. A tall shrub. Branched, downy. Leaves round, pointed, serrated, wrinkled, with two small, oval, obtuse stipulæ. March.

VII. MONADELPHIA.

Male flowers with one sett of united stamina.

PINUS. *Male* flowers in clusters: Calyx of four leaves. Corolla o. Stamina many. *Female*: Calyx the scale of a cone, containing two flowers. Corolla o. Pistillum single.

1. *Syl-*

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1. *Sylvestris*. *Scotch fir*. Leaves blueish, short, two together, convex on one side, concave on the other. Cones pendulous, small, whitish. May. In the Highlands of Scotland.
2. *Picea*. *Yew-leaved or silver fir*. Bark smooth, white. Leaves single, plane, bifid at the end, grey beneath. Cones erect. In the Highlands.
3. *Abies*. *Common fir, Spruce fir, or Pitch-tree*. Very tall. Bark red-brown. Leaves single, tetragonal, taper, pointed. Cones long, pendulous. In the Highlands.

CLASS

CLASS XXII.

DIOECIA.

Male and female flowers on separate plants.

I. DIANDRIA.

Male flowers with two stamina.

SALIX. *Male:* Calyx the scale of a catkin. Corolla o. A nectariferous gland in the center. *Female:* Calyx the same. Corolla o. Style very minute, bifid. Capsule unilocular, bivalve. Seeds numerous, downy.

* *Leaves smooth, serrated.*

1. Hermaphrodite. *Shining Willow.* Flowers hermaphrodite. Branches pale red. Veins on the upper side of the leaf hollow. March. In moist hedges near Aston in Cumberland.
2. Pentandria. *Sweet Willow, or Bay-leaved Willow.* Leaves odorous, on triangular vaginal footstalks, without auricles. April. On the mountains in the north.
3. Amygdalina. *Peach leaved, or Crack Willow.* Branches first green, then deep purple, brittle. Leaves five or six inches long, on footstalks, with small stipulæ. May.
4. Pur-

4. *Purpurea. Red Willow.* A low tree. Twigs flexile, red. Leaves long, narrow, scarce serrated, with yellow nerves and footstalk, without stipulæ, somewhat downy beneath, alternate; lower leaves opposite. April. May.
5. *Helix. Yellow Dwarf Willow.* Bark yellowish. Twigs angular, purple. Leaves bluish beneath, generally opposite. Catkin more compact, downy, with black scales. Capsules short, dense, downy. May. Not common.
6. *Herbacea. Mountain Dwarf Willow.* The least of all trees. Leaves orbicular, smooth, serrated, with yellow veins. Capsules large, purple, few. June. On the mountains in the north of England.
* * *Leaves smooth, intire.*
7. *Reticulata. Oval-leaved Mountain Dwarf Willow.* A small shrub. Leaves almost round, somewhat hairy, above wrinkled, beneath whitish and reticulate; veins first red, then green. On mountains. June.
* * * *Leaves intire, downy.*
8. *Aurita. Round leaved Willow.* Leaves woolly on both sides, with auricles. May. In woods and hedges.
9. *Arenaria. Sand Willow.* Leaves oval, acute; above downy, dark green; beneath woolly. Female spike an inch long. June. On sandy ground.

10. Re-

10. Repens. *Creeping Willow*. Stem the thickness of a finger, creeping. Branches downy. Leaves lance-shaped, slightly hairy, or quite smooth, bluish beneath. Catkin lateral. Capsules reddish. May.

11. Fulca. *Brown Willow*. Stem erect, a foot high; bark brown. Leaves narrow, villous, grey beneath. May. June.

12. Rosmarini folia. *Rosemary-leaved Willow*. Leaves sessile, woolly beneath. May.

*** Leaves slightly serrated, downy.

13. Caprea. *Common Sallow*. A moderate tree. Bark grey, rough. Leaves oval, wrinkled, woolly beneath, waved, some with and some without auricles. Catkin very thick. April, May.

14. Viminalis. *Osier*. Branches dark, flexile, erect, long. Leaves very long, narrow, downy beneath, dark green above, with a yellow nerve. Female spikes sessile, with silver-downy capsules. April.

15. Alba. *Common white Willow*. The tallest tree of this genus. Bark smooth and whitish. Leaves lance-shaped, pale green above, white beneath. Branches brittle. April.

II. TRIANDRIA.

Male flowers with three stamina.

EMPETRUM. Calyx tripartite. Petals three. Stamina long. Stigmata nine. Seeds nine, in a round berry.

1. Ni-

1. *Nigrum*. *Black-berried Heath, Crow, or Crane Berries*. A low weak shrub, much branched. Leaves numerous, short, obtuse. Flowers green or reddish, in the axæ of the leaves.

CAREX. For the generic character, see *Monoecia Triandria*.

1. *Dioeca*. *Small Carex*. Spike single, simple, oblong. Culm and leaves slender, triangular. June. On bogs, &c.

VALERIANA. See *Triandria Monogynia*.

1. *Dioica*. *Small Wild or Marsh Valerian*. Root creeping. Stalk striated, a foot high. Radical leaves single, oval; those above pinnated, entire. Flowers reddish white, in large tufts, terminal, and in the axæ of the leaves. June. In moist meadows.

III. TETRANDRIA.

Male flowers with four stamina.

VISCUM. *Male*: Calyx quadripartite. Corolla o. Filaments o. Antheræ adhering to the calyx. *Female*: Calyx of four leaves, above the germen. Style o. Stigma obtuse. Corolla o. Berry with one seed.

1. *Album*. *White Mistle, or Mistletoe*. A shrub, growing on the bark of several trees. Leaves conjugate, elliptical. Stem forked.

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ed. Flowers whitish, in the axæ of the leaves. May.

RHAMNUS. See *Pentandria Monogynia*.

1. Catharticus. *Buckthorn*. A tall shrub. Branches terminate in a spine. Leaves oval, pointed, serrated. Flowers small, greenish, quadrifid. Berry round, black.

URTICA. See *Monoecia Tetrandria*.

1. Dioica. *Common Nettle*. Stalk square, firm, three or four feet high. Leaves heart-shaped, long-pointed, serrated, beset with stings. Flowers in long catkins. July. In hedges, &c.

IV. PENTANDRIA.

Male flowers with five stamina.

HUMULUS. *Male*: Calyx of five leaves, oblong, obtuse. Corolla o. *Female*: Calyx of one leaf, oval, large, intire. Styles two. Seed one.

1. Lupulus. *Hops*. A tall, slender, voluble shrub. Leaves lobed, serrated, somewhat resembling those of the vine. June. In hedges frequent.

V. HEXANDRIA.

Male flowers with six stamina.

TAMUS. Calyx of six segments. Corolla o. Style trifid. Berry oval, trilocular. Seeds two.

1. Com-

1. *Communis. Black Briony.* Root large. Stalks several, long, slender, voluble. Leaves large, heart-shaped, glossy, dark green, on long footstalks. Flowers greenish. Berry red. June. In hedges.

RUMEX. See *Hexandria Trigynia*.

1. *Acetosa. Common Sorrel.* Stalks simple, above a foot high. Leaves oblong, arrow-shaped, acid, on reddish footstalks. Flowers small, reddish. June. In pastures.
2. *Acetosella. Sheep's Sorrel.* Stalk six or eight inches high. Leaves lance-shaped, generally hooked at the base. May—July. In pastures, &c.

VI. OCTANDRIA.

Male flowers with eight stamina,

POPULUS. Catkin oblong, loosely imbricated; scales lacerated at the edge. Filaments very short; antheræ large. Stigma quadrifid. Capsule bivalve, bilocular. Seeds numerous, downy.

1. *Alba. White Poplar.* A tall tree. Leaves large, dentato-angulated, white and woolly beneath. March.
2. *Tremula. Trembling Poplar, or Asp.* Leaves roundish, smooth on both sides, on long footstalks, with a double gland at the base. March.
3. *Nigra. Black Poplar.* Leaves rhomboidal, smooth, ferrated, pointed, dark green, on

on yellow footstalks. March. Near rivers.

RHODIOLA. Calyx quadripartite. Petals four. Nectaria four. Pistilla four. Capsules four. Seeds many.

1. *Rosea*, *Rosewort*. Root white, branched, smelling like a rose. Stalk simple, erect, covered with leaves, which are elliptical, sharply serrated. Flowers small, yellow, in umbels, terminal. June, July. On the mountains in the north of England.

VII. ENNEANDRIA.

Male flowers with nine stamina.

MERCURIALIS. Calyx tripartite. Corolla 0. Stamina 9 or 12; antheræ double. Styles two, reflex, cornuted. Capsule scrotiform, bilocular. Seeds single.

1. *Perennis*. *Dog's Mercury*. Stalk simple, about a foot high. Leaves opposite, serrated, pointed, rough, harsh. Catkins erect. April, May. Perennial. In hedges, &c.
2. *Annua*. *French Mercury*. Stalk branched, two feet high. Leaves opposite, oblong, pointed, serrated, smooth. Catkins erect. October. Annual. On waste ground frequent.

HYDROCHARIS. *Male*: Spatha of two leaves, trifloral. Calyx trifid. Petals three.

three. Stamina in three sets. *Female:*
 Calyx trifid. Petals three. Styles six.
 Capsule sexlocular. Seeds numerous.

1. *Morus Ranæ.* *Frog-bit*, or *small water Lilly.*
 Leaves reniform, with their foot-stalk in
 the pelvis, thick, smooth, brown-green,
 an inch in breadth, swimming on the
 water. Flower white. June. In ditches
 frequent.

VIII. DECANDRIA.

Male flowers with ten stamina.

CUCUBALUS. See *Decandria Trigynia.*

1. *Otites.* *Spanish Campion*, or *Catchfly.* Stalk two
 feet high. Radical leaves on broad foot-
 stalks, in a circle on the ground; those
 on the stem less, opposite, few. Flowers
 greenish; petals narrow, pointed, intire.
 July, August. In pastures, &c.

LYCHNIS. See *Decandria Pentagynia.*

1. *Dioica.* *Red, White Campion.* Stalk three
 feet high, hairy, branched, swollen at
 the joints. Leaves oval, sharp-pointed,
 hairy, waved. Flowers numerous, ter-
 minal, red in the male, white in the fe-
 male plant. May—July. Woods and
 hedges frequent.

IX. ICO

IX. ICOSANDRIA.

Male flowers with twenty or more stamina, inserted in the calyx.

RUBUS. See *Icosandria Polygynia*.

1. *Chamaemorus*. *Cloud Berry*. Stalk simple, brown, scarce a foot high. Leaves simple, on long foot-stalks, large, lobed, indented, alternate, 4 or 5 in number. Flower single, purple, terminal. Fruit red, resembling a raspberry. May, June. On bogs in the north.

X. MONADELPHIA.

Male flowers with one sett of united stamina.

JUNIPERUS. *Male*: Calyx the scale of a catkin. Corolla 0. Stamina three. *Female*: Calyx tripartite. Petals three. Styles three. Berry containing three seeds.

1. *Communis*. *Common Juniper*. A shrub, or tree. Bark reddish. Leaves small, narrow, sharp-pointed, three together, numerous, concave and bluish beneath. May. On heaths, &c.

TAKUS. Calyx the scales of a bud. Corolla 0. Stamina numerous. Style 0; stigma obtuse. Fruit a singular kind of berry, with a single seed, its apex prominent.

1. *Baccata*. *Yew-tree*. Bark reddish. Leaves deep green, long, narrow, close, as if pinnated, ever-green, April, May.

XI. SYNGENESIA.

Male flowers with united antheræ.

RUSCUS. Calyx of six leaves. Corolla o. Nectarium oval, large as the calyx, inflated, perforated. Filaments o; antheræ three. Style single. Berry trilobular. Seeds two.

1. *Aculeatus*. *Knee Holly*, or *Butchers Broom*. Stalk near two feet high, tough, woody, branched, striated. Leaves numerous, dark-green, elliptical, very sharp pointed, half an inch long. Flowers on the back of the upper leaves, greenish. Berries red, large. March, April. In woods, heaths, &c.

BRYONIA. Calyx campanulate, quinque-dentate. Corolla campanulate, quinque-partite. Filaments three, very short. Style trifid. Berry oval, smooth. Seeds several.

1. *Alba*. *White Briony*. Root white, very large. Stalk slender, angular, voluble, branched. Leaves palmated, or pentangular, with triangular lobes, serrated, hard and rough. Flowers whitish green, small, numerous. Berry red. May. In hedges, &c.

G N A-

GNAPHALIUM. See *Syngenesia Polygama Superflua*.

1. **Dioicum.** *Mountain Cudweed, or Cat's Foot.*
Stalk simple, four or five inches long, with several creeping shoots. Leaves in thick tufts on the ground, oblong, pointed, indented, downy beneath. Flowers in clusters, terminal, white, or reddish. May. In dry mountainous pastures.

T 3 CLASS

CLASS XXIII.

POLYGAMIA.

Flowers hermaphrodite, and also male or female flowers.

I. MONOECIA.

Polygamy on the same plant.

HOLCUS. *Hermaphrodite:* Calyx a husk, bivalve, rigid, beardless. Corolla a husk, tender, hairy, bearded, less than the calyx. Stamina three. Styles two. Seed one. *Male:* Calyx a husk, bivalve. Stamina three. Corolla o.

1. *Lanatus.* *Meadow Soft-Grass.* Culm a foot and a half high. Leaves downy. Husk bifloral, downy; beard of the male curved. Panicle not diffuse. June. In meadows, &c.

2. *Mollis.* *Creeping Soft-Grass.* Culm procumbent. Leaves less downy, and panicle more diffuse than the last.

ÆGILOPS. *Hermaphrodite:* Calyx a husk, cartilaginous. Corolla a husk. Stamina three. Styles two. Seed one. *Male:* Calyx, corolla and husk like the hermaphrodite,

1. In-

1. *Incurva. Sea Hard-Grass.* Culm six inches high. Spike very slender, cylindrical, beardless, jointed, smooth, curved. Calyx unifloral. Valves of the corolla placed contrary to the calyx.

VALANTIA. Calyx o. Corolla quadripartite. Stamina four. Style bifid. Seed one.

1. *Cruciata. Crosswort, or Mugweed.* Stalk in part procumbent, hairy. Leaves oval, pointed, hairy, four together. Flowers small, yellow, on short pedicles, in the axæ of the leaves, generally eight on each pedicle. May, June. In hedges.

PARIETARIA. Calyx quadrifid. Corolla o. Stamina four. Style one. Seed one. The hermaphrodite flowers two in each involucre, with a female between. Involucre of six leaves.

1. *Officinalis. Pellitory of the Wall.* Stalks reddish, jointed, numerous, a foot high. Leaves numerous, alternate, ovato-lanceolate, hairy. Flowers small, greenish, in the axæ of the leaves. May—Sept. On walls, &c.

ATRIPLEX. *Hermaphrodite*: Calyx of five leaves. Corolla o. Stamina five. Style bipartite. Seed one. *Female*: Calyx of two leaves. Corolla o. Style bipartite. Seed one.

1. *Portulacoides. Sea Purslane.* Stalks procumbent, woody, purplish, hairy, a foot long.

long. Leaves long, narrow, thick, whitish. Flowers sessile, greenish purple, on spikes. August. On the coast.

2. *Laciniata*. *Jagged Sea Orach*. Stalk erect, cylindrical; leaves above alternate, deltoide, dentate, hoary beneath. Terminal spikes bear hermaphrodite flowers; lateral spikes female. Calyx of the fruit quinquedentate. August. On the coast.

3. *Hastata*. *Wild Orach*. Female valves large, deltoide, sinuated. Leaves deltoide, hastate, sinuated. Flowers small, whitish, on long spikes. On waste ground, &c.

4. *Patula*. *Narrow-leaved Orach*. Stalk much branched, spreading. Leaves long, narrow, intire, pointed, broadest at the base. Valves of the seed dentated. Flowers whitish, on spikes. On waste ground, August.

5. *Littoralis*. *Grass-leaved Orach*. Stalk erect, Leaves very long, narrow, linear, intire. August, September. On the coast, and on waste ground.

6. *Pedunculata*. *Pediculated Sea Orach*. Stalk forked, erect. Leaves lance-shaped, obtuse, intire. Female calyx on a long pedicle. August, September. On the coast.

ACER. *Hermaphrodite*: Calyx quinquid. Corolla of five petals. Stamina eight. Pistillum one. Capsules two or three. Seed single, winged. *Male*: Calyx

POLYGAMIA. MONOECIA. 281

Calyx quinquifid. Corolla of five petals.
Stamina eight.

1. Pseudo-Platanus. *Sycamore-tree*, or *greater Maple*. A tall tree. Leaves large, of five lobes, irregularly serrated, whitish beneath. Flowers yellowish green, in clusters. May, June.
2. Campestre. *Common Maple*. A small tree. Bark rough, furrowed. Leaves lobed, notched, smooth on both sides. Flowers in clusters, on conjugate pedicles, terminal. May, June. In hedges.

II. DIOECIA.

Polygamy on separate plants.

FRAXINUS. Calyx quadripartite, or 6. Corolla 6. Stamina two. Pistillum 1. Seed 1.

1. Excelsior. *Ash-tree*. Leaves pinnated, serrated. March, April.

CLASS

CLASS XXIV.

CRYPTOGAMIA.

Fructification concealed.

I. FILICES, *Fern.*

Fruit generally on the back of the leaf.

EQUISETUM. Fructifications terminal, peltate, orbicular, of many valves, bursting at the base, arranged in ovato-oblong spikes. Stalk and leaves composed of tubes inserted into each other at the joints.

1. *Sylvaticum.* *Wood Horsetail.* Stem near two feet high, spicate. Leaves, or rather bristles, very slender, and numerous, with eight or ten whirls on each. April, May. In woods, &c.
2. *Arvense.* *Corn Horsetail.* Proliferous stems, without leaves; those on the rest long and angular. April. In wet corn-fields.
3. *Palustre.* *Marsh Horsetail.* Stem a foot high, with four or five deep furrows, so as to seem angular. Leaves long, simple, often consisting of ten or twelve joints. Spikes brown. June.

4. *Flu-*

4. *Fluviatile. River Horsetail.* Stem striated, three or four feet high, an inch in diameter. Bristles very numerous, generally simple, above twenty in each whirl, deeply furrowed. May. On the banks of lakes and rivers.

5. *Limosum. Smooth Horsetail.* Stem smooth, a foot and half high, naked in the spring, but afterwards producing twelve to eighteen leaves. June. In fens, &c.

6. *Hyemale. Rough Horsetail or Shave-grass.* Stem two to three feet high, without leaves or branches, furrowed, terminated by a brown spike. It has sometimes a branch or two at the bottom. July, August. In fens, &c.

OPHIOGLOSSUM. Spike jointed, distich; joints bursting transversely.

1. *Vulgatum. Adder's tongue.* A single leaf, oval, thick, without rib, or veins, on a foot-stalk four inches long. Spike an inch or more in length, extremely slender, on a pedicle. May. In meadows, &c.

OSMUNDA. Spike branched. Capsules globose, distinct, opening horizontally, collected in clusters. Seeds numerous.

1. *Lunaria. Moshwort.* A single, radical, pinnated, leaf, near two inches long, on a foot-stalk of four inches or more; pinnae lunated,

lunated, five or six pair. From the insertion grows a short stalk, with many pedicles, covered with yellowish capsules. May. In mountainous pastures, &c.

2. *Regalis. Flowering Fern, or Osmund Royal.* Root fibrous, implicated, blackish. Stalks several, four feet high, bipinnated, not dentated. Capsules numerous, on bushy, terminal ramifications. July, August. On bogs.

3. *Spicans. Rough Spleepwort.* Leaves several, lance-shaped, reclining, pinnatifid; segments intire, parallel. Seeds on the middle leaves only, which are more erect, brown, with two reddish lines parallel to the middle rib.

4. *Crispa. Stone Fern.* Leaves supradecomposite; pinnæ alternate, first deeply notched, afterwards intire. On the under side two yellow lines parallel to the middle rib. Some leaves without seeds. August. Among rocks in the north.

ACROSTICUM. Fructifications covering the entire disk of the leaf.

1. *Septentrionale. Horned, or forked, or naked Fern.* Leaf simply divided, naked, linear, laciniated and curved at the top, three inches high, numerous. August. In the fissures of rocks in Wales, &c.

2. *Ilvense. Hairy Fern.* Leaf sub-bipinnated; pinnulæ opposite, united, hairy beneath, about three inches long. In the fissures of rocks in Wales.

3. The-

3. *Thelypteris*. *Marsh Fern*. Leaf six inches long, pinnated; pinnae pinnatifid, entire. Orbiculae of seed ten pair or more, regularly disposed. *Hall. Helv.* 139. August. In fens, in the northern counties.

PTERIS. Seeds in lines near and parallel to the margin of the leaf.

1. *Aquilina*. *Female Fern* or *Brakes*. Leaf three or four feet high, supra-decomposited; Foliolae pinnated; pinnae lance-shaped, obtuse, entire. August. In woods, on commons.

ASPLENIUM. Seeds in right lines, converging towards the middle.

1. *Scolopendrium*. *Hart's-tongue*. Leaves numerous, near a foot long, simple, pointed, heart-shaped, at the base, entire; stalk hairy. Among stones, &c.
2. *Ceterach*. *Spleenwort*. Leaf four inches high, without stalk, pinnatifid; lobes alternate, confluent, harsh, pale green, rusty on the back. On old walls, fissures of rocks, &c.

* *Leaves pinnated.*

3. *Trichomanes*. *Common Maiden-hair*. Root black, fibrous. Stalk glossy, black. Leaves six inches high, pinnated, numerous; pinnae roundish, notched. Rows of seed 3-5. On old walls, &c. frequent.

4. *Ma-*

4. *Marinum*. *Sea Maiden-hair*, or *Fern*. Leaves three inches high, pinnated; pinnæ obliquely triangular, serrated; stalk shining, blackish. On rocks on the coast.

* * *Leaves decomposite.*

5. *Ruta muraria*. *White Maiden-hair*. Leaves two inches high, alternately decomposite; pinnulæ rhomboidal, obtuse, notched. Rows of seed two or three. In the fissures of rocks.
6. *Adiantum nigrum*. *Black Maiden-hair*. Stalk black, glossy. First branches long, gradually decreasing to a point, generally with three pair of pinnæ, alternate; pinnulæ oval, serrated, deep green above. Seeds white, in 3—7 rows.

POLYPODIUM. Seeds in roundish spots, disposed in lines on the disk of the leaf, parallel to the nerve.

* *Leaf pinnatifid, lobes united.*

1. *Vulgare*. *Common Polypody*. Leaves a foot high. Root long, a finger thick, hairy. Pinnæ lance-shaped, entire, or slightly serrated, gradually lessening to the top. Seed-spots yellow, in rows parallel to the rib. At the roots of trees, &c.
2. *Cambricum*. *Jagged Polypody*. Leaves pinnatifid: pinnæ lance-shaped, jagged. In a wood near Caerdiff, Glamorgan-shire.

* * *Leaves*

*** *Leaves pinnated.*

3. *Lonchitis*. *Great Polypody*, or *Spleenwort*. Stalk brown, chaffy. Pinnæ lunated, fringed, serrated, with appendages ending in a spine. The whole habit harsh and rough. Seed-spots twelve pair or more. In fissures of rocks, &c.

*** *Leaves semi-bipinnated.*

4. *Phegopteris*. *Wood Polypody*. A foot high. Lower branches bending backward. Pinnulæ intire, sharp-pointed, nervous; those at the ends of the branches are confluent, irregular, long. Among stones in the northern counties.
5. *Fragrans*. *Sweet Polypody*. Stalk scaly. Leaf lance-shaped, dense; lobes obtuse, serrated. Near Keswick in Westmoreland.
6. *Fontanum*. *Rock Polypody*, or *least Stone Fern*. About four inches high. Stalk whitish, smooth, hard, firm. Pinnæ few, middle ones longest; pinnulæ roundish, bidentate, tridentate. In the fissures of rocks, &c.
7. *Cristatum*. *Crested Polypody*. Pinnæ ovato-oblong; pinnulæ obtuse, sharp-serrated. Seeds on the upper pinnæ only. In woods, &c.

**** *Leaves bipinnated.*

8. *Felix mas*. *Male Polypody* or *Fern*. A foot and half high. Stalk scaly. Pinnæ nume-

numerous, regular, alternate, gradually less. Pinnulæ obtuse, notched. Seed-spots six or seven. In woods, heaths, &c.

9. *Felix femina. Female Polypody, or Fern.* Pinnulæ lance-shaped, distant, pinnatifid, acute. Seed-spots five or six pair. Segments serrated. In fens, &c.

10. *Aculeatum. Prickly Polypody.* Stalk scaly. Pinnulæ lunated, fringed, dentated, auriculated, spinous. Seed-spots twelve pair or more. In woods, &c.

11. *Rhæticum. Stone Polypody.* Pinnæ and pinnulæ remote; the latter lance-shaped, bifid, acute, hard, brittle. Angle of the pinnæ, &c. all acute. On craggy mountains in the northern counties.

12. *Fragile. Brittle Polypody, or fine cut stone Fern.* Height six inches. Pinnæ remote; pinnulæ roundish, lobed, serrated. Seed-spots large, blackish, numerous. Among stones, &c.

***** *Leaves supradecomposite.*

13. *Dryopteris. Branched Polypody.* A foot high. Pinnæ three together, bipinnated; pinnulæ intire. Among rocks, &c.

ADIANTUM. Seeds in oval spots, in the curled extremities of the leaves.

1. *Capillus Veneris. True Maiden-hair.* Six inches high. Leaves decomposite. Pinnæ alternate; pinnulæ wedge-shaped, lobed, on pedicles. On rocks. On Barry-Island, Glamorganshire.

2. Tra-

2. *Trapeziforme. Shining Maiden-hair.* Leaves supra-decomposited: pinnæ alternate: pinnulæ rhomboidal, cut at the edges. Pedicles black, shining. In Scotland.

TRICHOMANES. Calyx turbinated; single, terminated by a style like a bristle, on the very edge of the leaf.

1. *Pixidiferum. Cap Tricomenes.* Leaves short, procumbent, pellucid, sub-bipinnated: pinnulæ alternate, close, lobed, linear. Among stones in wet ground.

2. *Tunbrigense. Tunbridge Tricomenes.* Leaves short, procumbent, pellucid, pinnated: pinnulæ oblong, dichotomous, decurrent, dentated. Seed-globules between two valves. In the fissures of moist rocks in Wales, &c.

PILULARIA. Male flowers in a line, like dust, on the under side of the leaf. Females, at the root, globular, quadrilocular, containing many seeds.

1. *Globulifera. Pepper Grass.* Roots creeping. Leaves like rushes, three or four inches long. Capsules like pepper-corns. June—October. In marshy ground. Hounslow-heath, &c.

ISOETES. Male: Antheræ at the base of the inner leaves. Female: Capsule, bilocular, at the base of the external leaves. Seeds numerous.

- I. *Lacustris*. *Quillwort*. Leaves jointed, semi-cylindrical, taper, pointed. At the bottom of lakes on mountains in Wales, &c.

II. MUSCI, *Mosses*.

Antheræ without filaments. Female flowers distinct, without pistillum. Seed a naked corculum.

LYCOPODIUM. Anthera bivalve, sessile. Calyptra 0.

1. *Clavatum*. *Common Club-Moss*. Stalk creeping, branched. Leaves irregular, like threads or hairs. Spikes cylindrical, double, on a scaly pedicle. July. On heaths, &c.
2. *Selaginoides*. *Prickly Club-Moss*. Stalks procumbent. Branches two or three inches long, erect. Leaves narrow, irregularly disposed, concave, fringed, acute. Spikes single, terminal, leafy. On the hills in the northern counties. August.
3. *Inundatum*. *Marsh Club-Moss*. Stalk creeping. Leaves irregular, intire. Spikes terminal, single, leafy, erect. July. On wet heaths frequent.
4. *Selago*. *Fir Club-Moss*. Stalk erect, forked, flat at the top, resembling a branch of the fir-tree. Leaves irregular, numerous, deep green. Antheræ dispersed in the axæ of the leaves. August. On mountains in Wales, &c.
5. An-

5. *Annotinum. Welsh Club Moss.* Stalk creeping. Branches erect. Leaves irregular, five together, slightly serrated, resembling those of the Juniper, reflex. Spikes erect, smooth, terminal, single, without pedicle. July.

6. *Alpinum. Mountain Club Moss.* Stalk long, creeping. Branches numerous, two inches long, square. Leaves, in quadruple order, oval, concave, acute, hard. Spikes sessile, cylindrical. Yellow when full grown. August, September.

SPHAGNUM. Anthera globose; mouth intire, closed by an operculum or cover. Calyptra, or veil, o.

1. *Palustre. Grey Bog Moss.* Spreads in large tufts, soft. Branches numerous, short, conic, reflex, pendulous. Leaves imbricated, close, concave, triangular, obtuse, white, sometimes reddish. Antheræ brown, oval, on short pedicles. July, August.

2. *Alpinum. Green Bog Moss.* Very green. Branches subulate, erect. Antheræ oval. On bogs on mountains.

3. *Arboreum. Creeping Bog Moss.* Branched. Antheræ numerous, sessile, hairy, along the branches, chiefly on one side. November, December. On the trunks of trees, &c.

PHASCUM. Anthera with a pointed cover; mouth fringed. Calyptra minute.

1. *Acaulon*. *Oval Phascum*. With
Anthera sessile. Leaves oval,
cated, congested in the form of
January, February. On ditch
&c.
 2. *Subulatum*. *Subulated Phascum*.
stalk. Exterior leaves fine green
not pointed, spread upon the
interior leaves triangular, pallid
in a brown hair. Anthera sessile
very large, brown. March
On heaths, &c.
 3. *Repens*. *Creeping Phascum*. Stalk
vermicular. Anthera small, in
of the leaves. Leaves imbricate
the trunks of trees in Yorksh
- FONTINALIS**. Anthera with
cover; mouth fringed. Calyptra
sessile, conic, inclosed in an in
perichæetium.
1. *Antipyretica*. *Greater Water Moss*.
purplish. Leaves complicated
three ways, concave on the
ending in a pile. Anthera
lateral, in the axæ of the leaves
In flow rivers, &c.
 2. *Minor*. *Less Water Moss*. Differ
last in being less, and the an
minal. September, October.
banks of the Thames near L
 3. *Squamosa*. *Scaly Water Moss*. Lea
cated, slender, pointed, silk

Without stalk.
Leaves oval, imbricated,
the form of a bulb.
On ditch-banks;

basium. Without
fine green, plane,
upon the ground:
oblong, pallid, ending
in a sessile, oval,
March, April.

1. Stalk creeping,
leaves small, in the alae
imbricated. On
in Yorkshire.

2. Anthera with a pointed
calyptra smooth,
fixed in an imbricated

Water Moss. Stalk
complicated, pointing
upwards on the outside,
Anthera minute,
of the leaves. May.

3. Differs from the
and the anthera ter-
minal, October. On the
moor near London.

Moss. Leaves imbricated,
silk, shining
dark-

dark-green. Anthera lateral. August,
September. In rivulets in Wales.

4. *Pinnata*. *Feathered Water Moss*. Branched.
Leaves crisp, feathered, undulated,
pointing two ways. Anthera lateral,
red-yellow. August, September. On
trees.

SPLACHNUM. Anthera cylindrical,
on a large, coloured receptacle. Calyptra
conic, caducous. Female star on a se-
parate stalk, with several short, coloured
pistilla.

1. *Ampullaceum*. *Common Splachnum*. Leaves
pellucid, resembling those of Thyme.
Anthera erect, in pairs. April. On
bogs.

POLYTRICUM. Anthera with a co-
ver, on a small receptacle. Calyptra
downy. Female star on a separate
stalk.

1. *Commune*. *Common Polytricum*, or *great golden
Maiden-hair*. Stalk erect, simple. Leaves
like those of Juniper, hard and sharp-
pointed. Calyptra yellow, large, conic.
Anthera parallel-sided. Perennial.
May. On barren heaths.

2. *Alpinum*. *Alpine Polytricum*. Stalk much
branched. Anthera elliptical, terminal.
On mountains in Wales, &c.

3. *Urnigerum*. *Branched Polytricum*. Anthera
on pedicels, in the alae of the leaves.

MNIUM. *Male:* Anthera, on a radical pedicle, with a cover; calyptra smooth, oblong, oblique, pointed. *Female:* A naked bulb, without calyptra or cover, often on a different stalk.

1. **Pellucidum.** *Transparent Mnium.* Stems simple, some erect. Leaves oval, pointed, sessile, strong green, pellucid. Bristle from the apex an inch long. Calyptra erect, yellow above, very white below. Operculum conic. April. On the trunks of old trees, &c.

2. **Palustre.** *Marsh Mnium.* Stalk purplish mealy, forked. Leaves spreading, triangular, carinated. Female bristles numerous, yellow. Male bristles one inch and a half long, purplish. Calyptra slender, yellowish. June, July. On marshy ground.

3. **Androgynum.** *Upright Mnium, or cluster headed Goldilocks.* Stalk branched, androgynous, naked below. Leaves small, narrow, in tufts, terminal. Calyptra white. April. In woods, &c.

4. **Tricomane.** *Fern Mnium.* Leaves distich intire. February, March.

5. **Fissum.** *Forked Mnium.* Stalk creeping. Leaves roundish, bifid, otherwise like the last. March, April. In shaded places.

6. **Jungermania.** *Purple Mnium.* Stalk simple, procumbent. Leaves imbricated, alternate, intire, appendiculate, distich. On mountains and in rivulets.

BRYUM. Anthera with a conic cover. Calyptra smooth. Filament or pedicle from the central or terminal tubercle of the stem or branch.

* *Antheræ sessile.*

1. **Apocarpium.** *Hairy Bryum.* Branched. Leaves imbricated, deep green, terminating in a hair. Antheræ dark red, sessile. December. On stones and trees in the north.

** *Antheræ on pedicles, erect.*

2. **Pomiforme.** *Round-headed Bryum.* Stalks not quite an inch long, in thick tufts. Leaves generally pale, undulated, slender. Pedicle from the summit, reddish. Anthera spherical, sulcated, brown, with a red cover. March. On Hampstead heath, &c.
3. **Pyriforme.** *Pear-headed Bryum.* Leaves pale yellow, carinated, sessile, pellucid, broad. Antheræ turgid. Calyptra with a long horn. March. Common.
4. **Extinctorium.** *Conic Bryum.* Stalk an inch long. Leaves capillary, hooked. Antheræ erect, oblong. Calyptra loose, shaped like an extinguisher.
5. **Subulatum.** *Subulated Bryum.* Branched from the root, without stalk. Leaves capillary, pellucid. Antheræ erect, long, subulate, curved. Calyptra brown. In woods, &c.

U 4

6. Ru-

BRYUM.

6. *Rurale. Grey Bryum.* Erect. Leaves recurved, with a grey hair at the apex. Antheræ long, acute, curved like a bird's claw. March. On walls, &c.
7. *Murale. Wall Bryum.* Differs from the last only in being less, and the leaves and bill less curved. March. On walls, &c.
8. *Scoparium. Broom Bryum.* Stalks reclining. Leaves subulate, curved, on one side. Antheræ almost erect; pedicles aggregated. March, April. On old trees, heaths, &c.
9. *Undulatum. Curled Bryum.* Leaves lance-shaped, carinated, undulated, spreading, serrated. Antheræ a little curved, reddish. December, January.
10. *Glaucum. White Bryum.* Branched. Leaves erect, imbricated, numerous. Antheræ a little curved, on very short pedicles. Operculum arched. October, November. On moors.
11. *Pellucidum. Pellucid Bryum.* Stalk hairy, branched. Leaves pellucid, slender, curved, acute. Antheræ not quite erect. On bogs, &c.
12. *Aciculare. Mountain Bryum.* Leaves fine green, erect, chiefly turned to one side. Antheræ erect, cylindrical. Bristles yellow. Calyptra very acute. Operculum long, like a needle. August. On mountains in Wales, and North of England.
13. *Flexuosum.*

13. *Flexuosum*. *Soft Bryum*. Leaves like hair. Pedicles twisted. Antheræ erect. On rocks near Llanberris.
14. *Heteromallum*. *Heath Bryum*. Leaves like hair, turned one way. Antheræ erect.
15. *Tortuosum*. *Twisted Bryum*. Leaves long, narrow, curled, yellow when old. Pedicles, from the extremity of the stalk, purpleish, an inch long. Antheræ erect, almost cylindrical; operculum crested, with a few red hairs.
16. *Truncatulum*. *Brown Bryum*. One of the least. Stalks numerous, very short. Leaves narrow, taper, curled. Pedicles, from the center of the tufts, yellow. Antheræ erect, red, much truncated when without its cap. On ditch-banks, &c. February.
17. *Viridulum*. *Green Bryum*. Differs from the last in being of a finer green. Antheræ oval, yellow, and fringed. December, January. Hedge-bottoms, &c.
18. *Paludosum*. *Dwarf Bryum*. Among the least. Without stalk. Leaves narrow, taper. Antheræ very obtuse, spreading, brown, on very short pedicles. March. On bogs, &c.
19. *Hypnoides*. *Woolly Bryum*. Stalk not quite erect. Lateral branches short. Leaves acute, carinated, woolly. Antheræ, on short lateral pedicles, erect, but soon pendulous, oval. December. On mountains in Wales, and in the north.

20. *Verticillatum*. *Verticillated Bryum*. Antheræ erect. Pedicles twisted when dry. Leaves hairy. On mountains.
21. *Æstivum*. *Water Bryum*. Leaves subulate, distant. Antheræ erect, roundish, from the alæ. March. In fens.
22. *Argenteum*. *Silver Bryum*. Stalks cylindrical, imbricated, smooth, silvery. Leaves minute, numerous, triangular, compact. Anthera short, oval, blackish. Operculum short, conic. December. On walls, &c.
23. *Pulvinatum*. *Grey Bryum*. Leaves hairy. Antheræ roundish, pendulous, on short pedicles. April. On walls.
24. *Cespiticiu*. *Matted Bryum*. Leaves subulate, bristly. Antheræ pendulous, small; pedicle very long, red below, green-yellow above. On walls, &c. March.
25. *Capillare*. *Capillary Bryum*. Differs from the last in the antheræ being somewhat larger, and the leaves broader and more compact.
26. *Carneum*. *Shining Bryum*. Leaves acute, pellucid, alternate. Antheræ roundish, pendulous, pale red. March. On wet ground.
27. *Simplex*. *Red Bryum*. Stalk simple. Leaves subulate. Anthera oblong, pendulous, on a pedicle from the middle of the stem. Among grass, but rare.

HYPNUM. Calyptra smooth. Anthera, with an operculum or cover, on a pedicle, from a lateral perichæetium or scaly bulb. Stalk generally procumbent, with many branches. *Female*: a single pistillum, from the axæ of the leaves.

* *Leaf pinnated.*

1. **Taxifolium.** *Yew-leaved Hypnum.* Leaf simple, pinnated, lance-shaped. Pedicle from the root. Antheræ roundish, erect. February. In hedge bottoms, &c.

2. **Denticulatum.** *Feathered Hypnum.* Leaf simple, pinnated; pinnae duplicate, curved. Pedicle from the root. April. In woods, &c.

3. **Bryoides.** *Fern Hypnum.* Leaf simple, pinnated, lance-shaped. Pedicle from the apex of the stalk. February.

4. **Adiantoides.** *Upright Hypnum.* Leaf pinnated, branched, erect. Pedicle from the middle. Pinnulae acute. March. On bogs.

5. **Complanatum.** *Flat Hypnum.* Leaf pinnated, branched; pinnae acute, imbricated, complicated, compressed, glossy. Antheræ oval. March, April. On trees.

* * *Stalk straggling.*

6. **Lucens.** *Shining Hypnum.* Stalks branched. Leaves sub-pinnated, large, glossy, punctured. March. In shady wet places.

7. Un-

7. *Undulatum. Waved Hypnum.* Stalk branched, five or six inches long. Branches few, irregular. Leaves sub-pinnated, narrow, waved, glossy. Bulb long, loose. Pedicle scarce an inch. Calyptra long, with a yellow apex. Operculum with a long horn. In woods.

8. *Crispum. Curled Hypnum.* Branched. Leaves sub-pinnated; pinnae undulated, curled. Pedicle and anthera short. Among stones.

9. *Triquetrum. Triangular Hypnum.* Branches unequal, curved. Leaves triangular, spreading, recurved, pointed, large, pale. February. In woods, &c.

10. *Rutabulum. Toothed Hypnum.* Branches irregular. Leaves oval, imbricated, pointed. Calyptra long, shining. Operculum obtuse. December. In woods, heaths, &c.

*** *Stalks pinnated.*

11. *Filicinum. Bog Hypnum.* Stalk creeping. Branches distant. Leaves imbricated, incurved, acute, turned to one side. March. On bogs.

12. *Parietinum. Wall Hypnum.* Stem creeping, naked or close, covered with leaves. First branches few, alternate; second branches opposite, in the same plane, like Fern, and pinnated. Pinnulae minute, acute, fine green, glossy. Bulbs numerous. Pedicles aggregate, two inches long, purple, waved. Calyptra yellow, shining.

ing. Operculum with a long bill.
February. On heaths, &c.

13. *Proliferum*. *Proliferous Hypnum*. Differs only from the last in being less, and the leaves not glossy.

14. *Prælongum*. *Trailing Hypnum*. Stalks sub-bipinnated, decumbent, long. Branches remote. Leaves oval, small, curled. Antheræ drooping. February, March. On old trees, &c.

15. *Crista Castrensis*. *Crested Hypnum*. Pinnated. Branches approximate, curved at the apex, yellowish. February. On chalk-hills.

16. *Abietum*. *Fir Hypnum*. Branches pinnated, roundish, remote, unequal, subulate, tenacious, yellowish. Pedicles single, purple, strait. Calyptra erect, subulate, pallid. Anthera brown, much curved. On hills in Oxfordshire.

17. *Plumofum*. *Winged Hypnum*. Creeping, pinnated. Branches approximate. Leaves imbricated, subulate; antheræ erect. February. On walls, trees, &c.

**** *Leaves reflex.*

18. *Cupressiforme*. *Cypress Hypnum*. Creeping, sub-pinnated. Leaves sharp-pointed, curved, turned all one way. February. On old trees, &c.

19. *Adun-*

19. *Aduncum. Hooked Hypnum.* Erect, branched. Leaves like the last. Branches curved at the top. May. On bogs.
20. *Scorpoides. Scorpion Hypnum.* Branches irregular, procumbent, curved. Leaves like the two last. On bogs.
21. *Viticulosum. Mountain Hypnum.* Creeping. Branches irregular, cylindrical. Leaves spreading, pointed. Anthera cylindrical. March. On heaths, &c.
22. *Squarrosum. Common Hypnum.* Branches irregular. Leaves oval, sharp-pointed, reflex. April. In wet meadows.
23. *Loricum. Ground Hypnum.* Stalk creeping. Branches irregular, erect. Leaves turned one way. Antheræ roundish, with a large operculum. On hills.
- ***** *Bushy, or fasciculate.*
24. *Dendroides. Tree Hypnum.* Stalk erect, two inches high, bushy at the top. Leaves narrow, concave, close to the stem, yellowish, shining. Antheræ erect. March.
25. *Aleopecurum. Fox-tail Hypnum.* Differs from the last in the branches being more slender, and subdivided, and the antheræ drooping. April. In woods, &c.
- ***** *Cylindrical.*
26. *Curtipendulum. Pendulous Hypnum.* Stalks straggling. Leaves oval, acute, spreading.

ing. Antheræ pendulous, on short pedicels. February. On the roots of trees, &c.

27. *Purum. Meadow Hypnum.* Stalk straggling. Leaves oval, obtuse, imbricated. Antheræ oblique. February. In woods, pastures, &c.

28. *Illecebrum. Geniculated Hypnum.* Stalk and branches irregular, cylindrical, not quite erect, obtuse. Leaves roundish, imbricated, whitish. March, April. On heaths.

29. *Riparium. Floating Hypnum.* Branched, pinnated, floating. Leaves acute, spreading, distant. December, January. On the banks of rivers.

30. *Cuspidatum. Pointed Hypnum.* Stalks irregular, creeping, pointed, and pungent. Leaves triangular, spreading, but convoluted at the apex. March, April.

***** Branches numerous, crowded.

31. *Sericeum. Silky Hypnum.* Creeping. Branches erect. Leaves subulate, silky, yellowish. Antheræ erect. December, January. On walls, trees, &c.

32. *Velutinum. Velvet Hypnum.* Differs from the last in being much shorter, more green, and more compact, and the antheræ drooping. February. In woods, &c.

33. *Serpens. Creeping Hypnum.* Stalks very slender and short. Leaves obliterated. An-

Antheræ erect, oblong, somewhat large; pedicles long. April. On old trees.

34. *Sciuroides*. *Squirrel-tail Hypnum*. Stalks erect, branched, curved. Leaves dark-green. February—April. On trees.

35. *Myosuroides*. *Mouse-tail Hypnum*. Branches very numerous, subulate. Leaves triangular, narrow. Antheræ oblong, drooping. February. On walls, &c.

36. *Clavellatum*. *Club Hypnum*. Creeping. Branches erect, much crowded. Pedicles short. Antheræ curved. December. On old trees, &c.

III. ALGÆ, *Flags*.

Root, stem, and leaf, all in one.

JUNGERMANNIA. Anthera oval, opening in four valves, on a long strait pedicle, from a membranous vagina; valves spreading, permanent. *Female*: Consists only of naked sessile seeds, generally on the same plant.

* *Leaves pinnated, turned one way.*

1. *Asplenoides*. *Spleenwort Jungermannia*. Stem five or six inches long, inclining, purple. Leaves alternate, roundish, scarce touching, minutely fringed at the edge. Pedicle half an inch long. Flower, formed of the expanded anthera, large, black. February, March. In woods, &c.

2. *Vi-*

2. *Viticulosa. Straggling Jungermania.* Stalks long, simply pinnated. Leaves subulate, small, dense. Flowers from the base and from the middle. In wet woods.
 3. *Polyanthos. Many-flowered Jungermania.* Simply pinnated, creeping. Leaves imbricated, dense, intire, roundish, pointed, convex. Pedicle from the origin of the stem, an inch and half long. Flower blackish, with very narrow segments. April. On bogs, &c.
 4. *Lanceolata. Spear-leaved Jungermania.* Small, creeping, flowering at the top. Leaves simply pinnated, intire, launce-shaped, dense, fine green. February. In wet shady places.
 5. *Bidentata. Bifid Jungermania.* Differs from the last in being larger, and the leaves bifid, concave, and more acute. October, November. In woods, heaths, &c.
 6. *Bicuspidata. Forked Jungermania.* Small, creeping, flowering from the middle. Vaginæ cylindrical. Leaves bifid, roundish. March. In moist shady places.
 7. *Quinquedentata. Toothed Jungermania.* Pinnated, branched, flowering at the top. Leaves quinquedentate. April. In Yorkshire.
- * * *Bipinnated, with auricles.*
8. *Undulata. Eared Jungermania.* Bipinnated, above, flowering at the top. Leaves roundish,

roundish, undulated, intire, equal, alternate, distich, auriculate. March. In woods, &c.

9. *Nemorosa. Wood Jungermania.* Differs from the last in the leaves being fringed, and less.

10. *Resupinata. Curled Jungermania.* Bipinnated above, flowering below. Leaves round, notched, imbricated, curled. April. In the fissures of rocks.

11. *Albicans. White Jungermania.* Bipinnated above, flowering at the top. Leaves linear, curved. March. In woods, &c.

12. *Trilobata. Trifid Jungermania.* Bipinnated beneath. Leaves broad, trilobed.

13. *Reptans. Creeping Jungermania.* Bipinnated beneath, apex creeping, flowering at the base. Leaves quadridentate, imbricated. April. In shade.

*** *Leaves doubly imbricated.*

• 14. *Complanata. Flat Jungermania.* Creeping. Branches equal. Leaves auriculate below, doubly imbricated, yellowish, flat. April. On the trunks of trees frequent.

15. *Dilatata. Scaly Jungermania.* Less than the last. Branches broader at the top, and the scales convex. March. On trees, frequent in the north.

16. *Tamarisci. Tamarisk Jungermania.* Upper leaves roundish, convex, obtuse, much larger

larger than the rest, black-purple. On trees in the north.

17. *Platyphylla*. *Wall Jungermania*. Pro-
cumbent, imbricated beneath. Leaves cor-
dated, acute, dark-green. March,
April. On walls and trees.

18. *Ciliaris*. *Fern Jungermania*. Creeping.
Leaves oval, acute, auriculate below,
and fringed. April. On heaths, near
rivulets, &c.

19. *Varia*. *Upright Jungermania*. Not quite
erect. Leaves cordated, carinated,
bipartite, bifarious. March. In woods,
&c.

*** Imbricated on every side. Leaves irregular.

20. *Julacea*. *Round Jungermania*. Stalks cylin-
drical. Flowers on pedicles. October.
On rocks in Wales.

21. *Rupetris*. *Rock Jungermania*. Stalks cylin-
drical. Leaves subulate, reflex, dark-
green. April, May. On rocks in
Wales.

22. *Trichophylla*. *Hairy Jungermania*. Stalks
cylindrical, a little erect. Leaves equal,
capillary, pointed, erect. Flowers at
the extremity. On moors, in the north.

23. *Alpina*. *Mountain Jungermania*. Stalks cy-
lindrical. Leaves oval, spreading, dark-
reddish. Calyces imbricated. On
bogs on the mountains in Wales.

***** *Without stem. Leaves simple.*

24. *Epiphylla. Broad-leaved Jungermania.* Leaves broad, depressed and black in the middle, laciniated and curled at the edges. Flower whitish, from the middle of the leaf, with spungy threads in the center. March. In rivulets frequent.
25. *Pinguis. Jagged Jungermania.* Leaf oblong, pale-green, sinuated, fatty. Antheræ oblong, from the division of the leaves. April. On bogs, &c.
26. *Multifida. Dwarf Jungermania.* Leaves bipinnatifid. April. In woods.
27. *Furcata. Globe Jungermania.* Leaves linear, branched, forked at the extremities. April. In woods.
28. *Pusilla. Shining Jungermania.* Leaves sub-pinnatifid; lobes imbricated. Antheræ black, shining. Perichæcium plicated. On heaths.

TARGIONIA. Calyx black, bivalve, or rather bifid, with a longitudinal slit, including a globe. *Habit:* A leafy substance.

1. *Hypophylla. Vetch Targionia.* Leaf single, small, flat, oblong, notched or digitated, half an inch long, first green then dark-purple, blackish beneath, bearing on the apex, beneath, fruit like a small vetch. In the north of England.

MAR-

MARCHANTIA. *Male:* Calyx pel-
tate, covered beneath by monopetalous
corollæ, on a long, strait, tetragonal pe-
dicle, from the apex of the leaf. An-
thera multifid. *Female:* Dispersed, on
the same plant, sessile, consisting of a
campanulate calyx, with many seeds in
the bottom. *Habit:* Flat leaves, at-
tached by very slender fibres from the
under surface.

1. Polymorpha. *Common Marchantia.* A con-
geries of broad, irregular, dusky green
leaves, often imbricated. Common
calyx with ten segments. Pedicle an
inch long. Head stellated. August.
Near springs, damp walls, &c.
2. Cruciata. *Cross-headed Marchantia.* Leaves
fine green, without nerve, spread in a
broad circle. Common calyx quadri-
partite, segments tubular. Pedicle two
inches long. Head cruciate. Female
lunated. July, August. in shady places.
3. Hemispherica. *Marsh Marchantia.* Common
calyx quinquefid, hemispherical. Pedi-
cles short. Head stellate. Perichæcium
o. On bogs, &c. April, May.
4. Conica. *Wart Marchantia.* Leaves in large
clusters, laciniated, obtuse, green, with
many white tubercles. Common calyx
quinelocular, oval. Globules five or
six on each pedicle. April. On the
banks of rivulets, &c.

BLASIA. Calyx cylindrical, filled with seed. Fruit roundish.

1. *Pufilla.* *Dwarf Blasia.* Leaves small, in a circle from one to two inches diameter, deep purple at the base, green at the edges, lacinated. Heads globose, on slender pedicles an inch long. Near Manchester, Northumberland, &c.

RICCIA. Calyx o. Corolla o. Anthera cylindrical, sessile, on the germen. Style perforating the anthera. Seeds hemispherical, pedicillated.

1. *Minima.* *Small Riccia.* Leaves smooth, bipartite, acute, expanded on the ground, November. After inundation.
2. *Glauca.* *Marsh Riccia.* Leaves smooth, small, middle nerve depressed, divided into two or three thick lobes. March. In fens, &c.
3. *Fluitans.* *Floating Riccia.* Leaves linear, forked. In stagnant water.

ANTHOCEROS. Calyx sessile, truncated, intire. Anthera single, subulate, very long, bivalve. *Female*: generally on the same plant; calyx sexpartite; seeds three.

1. *Punctatus.* *Spotted Anthoceros.* A cluster, near an inch in diameter, of green, thin, almost pellucid, oblong, irregular, sinuated, glossy, punctured leaves. April. In damp shady places.

LICHEN.

LICHEN. *Male*: Numerous, on a receptacle generally orbicular, large, shining, plane, convex or concave, glutinous. *Female*: Farina sprinkled on the same, or on a separate plant.

* *Spotted, tubercular.*

1. *Scriptus. Lettered Liverwort.* Very thin, whitish, with black irregular lines, resembling some sort of letters or characters. On the bark of trees frequent.
2. *Geographicus. Map Liverwort.* Yellowish, with black lines, resembling a geographical map. On calcareous rocks in the northern counties.
3. *Rugosus. Wrinkled Liverwort.* Whitish, covered with simple black lines and dots. On trees.
4. *Sanguinarius. Black-nobbed Liverwort.* Greenish-ash-colour, with very black tubercles, which are red within. On rocks, and on the bark of trees.
5. *Fusco-ater. Wall Liverwort.* Brown, with black tubercles. On old walls frequent.
6. *Calcarius. Dyer's Liverwort.* White, with black tubercles. On calcareous rocks in Westmoreland and in Wales.
7. *Fagineus. White Liverwort.* White, with white tubercles, mealy. On the bark of the hornbeam, elm, and beech.

8. *Carpineus*. *Hornbeam Liverwort*. Ash-coloured, with whitish wrinkled tubercles. On the bark of the hornbeam, hazel, and ash.
9. *Ericetorum*. *Heath Liverwort*. White, with reddish tubercles. On wet heaths, &c.

** *Crustaceous, spotted with scutella, or little targets.*

10. *Candelarius*. *Yellow Liverwort*. Deep yellow, with paler scutella. December—June. On walls, bark of trees, &c.
11. *Tartareus*. *Welsh Liverwort*. Silver-grey, thick. Scutella large, pale-yellow, with a white margin. On rocks in Wales and the north of England.
12. *Pallescens*. *Pale Liverwort*. Whitish, orbicular, downy. Scutella pallid, sometimes greenish. On walls, and on the bark of trees.
13. *Subfuscus*. *Brownish Liverwort*. Whitish. Scutella brownish, with a grey margin, slightly notched. On the bark of trees and walls.
14. *Pertusus*. *Warty Liverwort*. Ash-colour. Scutella greenish. On trees.

*** *Imbricated.*

15. *Centrifugus*. *Spreading Liverwort*. Foliola multifid, smooth, centrifugal. Scutella red-brown. On large stones in Wales, &c.

16. *Saxa-*

16. *Saxatilis*. *Stone Liverwort*. Imbricated, Greenish grey. Foliola sinuated, rough. Scutella the same colour. On stones, trunks of trees, &c. frequent.
17. *Omphaloides*. *Purple Liverwort*. Imbricated. Foliola multifid, smooth, obtuse, downy, purple, an inch long. On rocks, &c.
18. *Olivaceus*. *Olive Liverwort*. Imbricated. Foliola lobed, glossy, livid. Scutella large. On rocks, trees, &c.
19. *Parietinus*. *Common Liverwort*. Imbricated. Foliola yellow, curled. Scutella of the same colour, On walls and trees.
20. *Physodes*. *Inflated Liverwort*. Imbricated. Ash-colour. Laciniæ obtuse, sub-inflated; concave, furrowed, and black beneath. On heaths in the north.
21. *Stellaris*. *Starry Liverwort*. Imbricated. Foliola oblong, narrow, laciniated, ash-colour. Scutella black. On the bark of ash-trees, &c.

* * * * *Foliaceus*.

22. *Ciliaris*. *Hairy Liverwort*. Foliaceous, ash-colour, a little erect; segments linear, fringed, with hairs at the edge. Scutella notched, on pedicles, black. On the bark of trees frequent.
23. *Islandicus*. *Eringo-leaved Liverwort*. Foliaceous, rigid, dry, ascendent, laciniated or forked; margin raised, regularly fringed

fringed with short spines. Colour whitish, but varying to brown or purple. Scutella rarely visible. On heaths and mountains in Wales, &c.

24. *Nivalis*. *Snow Liverwort*. Foliaceous, erect, concave, lacinated, smooth, curled at the edges, silver-white above, with a greenish cast when young; brown beneath. Tubercles brown. On the ground, on barren hills. *Wallis. Northumb. 275.*
25. *Pulmonarius*. *Tree Liverwort*, or *Lungwort*. Foliaceous, lacinated, obtuse, smooth, pale-brown, reticular above, woolly beneath. Scutella at the edges. On the bark of oak and ash trees.
26. *Furfuraceus*. *Branny Liverwort*. Foliaceous, decumbent, plane, soft; segments unequal, acute; above white or ash-colour, beneath black. On trees.
27. *Ampullaceus*. *Bladder Liverwort*. Foliaceous, lobed, notched, smooth, curled at the edge, with globular inflated vesicles. In mountainous pastures in Lancashire, &c.
28. *Farinaceus*. *Mealy Liverwort*. Foliaceous, erect, compressed, branched, ash-colour, mealy, with tubercles on the margin. On the bark of trees.
29. *Calicaris*. *Channeled Liverwort*. Foliaceous, erect, linear, branched, channeled, ash-colour, convex, with points, resembling coral. On rocks and trees.
30. *Fraxi-*

30. *Fraxineus*. *Ash Liverwort*. Foliaceous, erect, oblong, rigid, laciniated, channeled, smooth, ash-colour. Scutella on short pedicles. On ash and oak trees.

31. *Prunastri*. *Thorn Liverwort*. Foliaceous, a little erect, channeled, soft, downy white beneath, branched like deers horns. On the bark of thorns and other trees.

32. *Juniperinus*. *Juniper Liverwort*. Foliaceous, laciniated, curled, yellow; peltæ brown. On the bark of trees.

33. *Glaucus*. *Shining Liverwort*. Foliaceous, depressed, lobed, smooth, shining, ash-colour; margin curled and mealy; blackish beneath. In mountainous pastures.

***** *Coriaceous*.

34. *Resupinatus*. *Livid Liverwort*. Foliaceous, creeping, lobed, dark ash-colour, reddish white beneath; peltæ red, marginal, on the under side. On pebbles on the coast of Suffex, and on rocks in Shrophshire.

35. *Aphtosus*. Foliaceous, creeping, lobed, digitated, obtuse, plane; above lively green, whitish at the edges, and brown beneath. Tubercles marginal, black. On the rocks near the Roman wall, by Crag-Lake. *Wallis Northumb.*

36. *Caninus*. *Ash-coloured Ground Liverwort*. Foliaceous, creeping, lobed, obtuse, plane; veiny

veiny and villous beneath; peltæ marginal, ascendent. On heaths, &c.

37. Fascicularis. *Gelatinous Liverwort*. Foliaceous, palmated. Tubercles large, numerous, turbinated, in clusters. *Syst. Nat. Mantiss. p. 133.*

***** Umbilicated, and dirty, as if with soot.

38. Miniatus. *Cloudy Liverwort*. Foliaceous, short, obtuse, curled, dry, ash-colour, punctured. Beneath red-yellow, smooth. On rocks.

39. Velleus. *Fleecy Liverwort*. Foliaceous, roundish, peltated, almost intire, extremely hairy or woolly beneath. On rocks in the north.

40. Pustulatus. *Singed Liverwort*. Foliaceous, ash-colour, orbicular, puspular, as if burnt, channeled beneath. On rocks in Radnorshire.

41. Deussus. *Sooty Liverwort*. Foliaceous, orbicular, intire, brownish ash-colour, smooth, with small, black, compressed peltæ. On St. Vincent's Rock near Bristol.

42. Polyphyllus. *Smooth Liverwort*. Leaves numerous, smooth on both sides, notched. On Snowden-hills, on the rocks called Llyn Llydaw.

43. Polyrhizos. *Fibrous Liverwort*. Leaves numerous, smooth, dirty brown, black and fibrous beneath. With the former.

Cup-

***** *Cup-bearing.*

44. *Cocciferus. Red Liverwort.* Simple, intire, greenish grey, about an inch diameter, with scarlet tubercles round the edge of the cup. November—January. In woods, heaths, &c.
45. *Cornucopoides. Radiated Liverwort.* Margins radiated, foliated. Cups large; tubercles scarlet. On heaths.
46. *Pyxidatus. Cup Liverwort.* Ash-colour, simple, notched round the edge. Tubercles brown. In woods, &c.
47. *Fimbriatus. Indented Cup Liverwort.* Simple. Margin of the cups denticulated, proliferous. In woods, &c.
48. *Gracilis. Tall Liverwort.* Branched, denticulated, slender, smooth, bright brown, two inches long. On heaths, &c.
49. *Digitatus. Fingered Liverwort.* Branches numerous, irregular, like coral. Cups intire; tubercles scarlet. Height one inch.
50. *Cornutus. Simple Cup Liverwort.* Generally simple, sometimes bifid. Cup intire, often obsolete. Ash-colour. Nov.—Feb. On heaths, &c.
51. *Difformis. Serrated Liverwort.* First erect, then curved, thickness of a quill, simple, slenderest at the base, a little downy. Cup dentated. On heaths, &c.

Bushy.

***** *Busby.*

52. *Rangiferinus.* *Rhen-deer Liverwort.* Much branched, tubular, white, soft when young; horns drooping, reddish. Fructification seldom visible. In woods, heaths, &c.
53. *Uncialis.* *Short Liverwort.* Tubular; branches short, acute, soft, slender. On heaths.
54. *Subulatus.* *Horned Liverwort.* Tubular. Grey. Branches few, simple, subulate. Length three inches. Fructification on the tips, small, round, brown. On heaths, &c.
55. *Paschalis.* *Woody Liverwort.* Solid, branched, two inches high, covered with crustaceous leaves, grey. On mountains in Wales and in the north of England.
56. *Fragilis.* *Brittle Liverwort.* Solid. Branches cylindrical, obtuse. Greyish brown. Height one inch. Tubercles black, crested, terminal. On mountains in Wales and in the north.
57. *Globiferus.* *Cypress Liverwort.* Much branched, solid; without leaves, ash-colour, smooth. Tubercles terminal, hollow, with a small aperture, black within. *Syst. Nat. Mantiff. p. 133.*

***** *Filamentous.*

58. *Plicatus.* *Common Hairy Liverwort.* Pendulous, implicated, long. Scutella radiated. On trees.

59. Bar-

59. *Barbatus*. *Bearded Liverwort*. Long, pendulous, ash-colour, sub-articulated. Branches spreading, very slender. In woods, &c.
60. *Jubatus*. *Fennel Liverwort*. Pendulous; alæ compressed. Blackish grey. On trees and stones.
61. *Lanatus*. *Woolly Liverwort*. Decumbent, implicated, opaque. Like black wool. On rocks.
62. *Chalybeiformis*. *Wiry Liverwort*. Decumbent, implicated, twisted, rigid. On trees.
63. *Hirtus*. *Rough Liverwort*. Erect, much branched, sprinkled with farinaceous tubercles. In woods.
64. *Vulpinus*. *Gold Liverwort*. Erect, much branched, yellow. In woods frequent.
65. *Articulatus*. *Jointed Liverwort*. Jointed. Branches very slender, punctured. In woods, but rare.
66. *Floridus*. *Flowering Liverwort*. Erect, branched. Scutella radiated. In woods, &c.

CHARA. Calyx of two leaves, small. Anthera globose. Stigmata three. Seed one. *Habit*: Immerled. Leaves verticillate, linear, rough, sub-articulate. Fructification, in form of sessile globules, in the alæ.

1. *Tomentosa*. *Brittle Chara*. Ash-colour, a foot or more in height. Root fibrous. Stalks

Stalks several, flat, with spines at the joints. Very brittle, and gritty in the mouth. In ponds and ditches.

2. *Vulgaris. Common Chara.* Stalk six or eight inches long, round, smooth, striated, jointed, branched, procumbent. Leaves long, narrow, dentated on the inner side. Colour yellowish or reddish green. Fructification in the alæ generally four, orange. Foetid. In stagnant water frequent.

3. *Hispida. Prickly Chara.* Stalks numerous, procumbent, jointed, round, about eight inches long, thick set with spines. Leaves long, slender, pointed, whitish green. In stagnant water in Westmoreland, &c.

4. *Flexilis. Smooth Chara.* Flexile, diaphanous, without spines. Leaves long, slender, intire. Globules in the alæ generally eight. In ponds and ditches.

TREMELLA. Gelatinous, membranous substance : Fructification scarce visible.

1. *Nostoc. Jelly Tremella.* Green or yellowish, plicated, undulated. On the ground generally after rain. Supposed by the country-people to be that meteor which they call a falling star.

2. *Auricula. Jew's Ear.* Sessile, greenish ashy-colour, wrinkled, somewhat resembling the human ear, covered with short down. On old trees, &c. frequent.

3. Li-

3. *Lichenoides*. *Transparent Tremella*. Erect, plane, margin curled, lacinulated, brown. On heaths, in woods, &c.
4. *Verrucosa*. *Warty Tremella*. Tubercular, solid, wrinkled, roundish, resembling a bladder, blackish yellow. On stones in rivulets.
5. *Hemispherica*. *Sea Tremella*. Scattered among *Conservae*, *Fuci*, &c.
6. *Purpurea*. *Purple Tremella*. Globular, sessile, solitary, smooth. On ditch-banks about London.

FUCUS. *Male*: Vesicles interwoven with hairs. *Female*: Vesicles full of gelatinous matter, and covered with perforated granule. Seed single. *Habit*: Immersed, coriaceous, without root, sessile.

* *Leaves flat, dichotomous.*

1. *Serratus*. *Serrated Fucus*, or *Sea Wrack*. Broad, tubercles at the apex. On rocks frequent.
2. *Vesiculosus*. *Common Fucus*, or *Sea Oak*. Intire, with a stalk in the middle, and vesicles at the extremities. On rocks and stones on the shore every where.
3. *Geranoides*. *Bushy Fucus*. Lance-shaped, intire, blind, and tuberculated at the apex. On the sea-shore frequent.
4. *Spiralis*. *Twisted Fucus*. Intire, punctated, membranous, channeled beneath. Fructification

fructification terminal, geminate, on pedicels, oblong.

5. *Divaricatus*. *Shrubby Fucus*. Membranaceous, linear, intire, divaricated at the axillæ. Vesicles axillary, two together, but sometimes single. On the coast.

*** *Leaves cylindrical, dichotomous*.

6. *Excissus*. *Furrowed Fucus*. Linear, small, dotted. Axillæ divaricated. Segments on one side gibbous, on the other hollow. Yellowish green. On the shore.

7. *Nodosus*. *Knotted Fucus*. Stalk compressed. Leaves small, opposite. A large oval vesicle on the middle of each branch. On rocks on the shore.

*** *Branched, cylindrical*.

8. *Siliquosus*. *Podded Fucus*. Much branched, flexile, compressed. Leaves distich, alternate, intire. Fructification alternate, pointed, taper, on a pedicle, larger than the leaf. On the sea-shore.

9. *Fœniculaceus*. *Fennel-leaved Fucus*. Filiform, much branched. Vesicles oval, terminated by small leaves with many segments, often with tubercles at the ends. On the coast of Yorkshire and Lancashire.

10. *Abrotanifolius*. *Jointed Fucus*. Filiform, compressed, bipinnated. Apices dilated, vesicular. On the Sussex coast.

Fruc-

**** *Fruetification not vesicular.*

11. *Confervoides. Reddish Fucus.* Filiform, cylindrical, compressed, much branched; branches unequal, setaceous. Tubercles dispersed, roundish. On the northern coast.
12. *Muscoides. Thorny Fucus.* Cylindrical, much branched; branches irregular, with short, alternate, soft spines. Dark-brown, diaphanous. On the Yorkshire coast.
13. *Cartilagineus. Scarlet Fucus.* Much branched, supra-decomposite, pinnated; segments linear, scarlet. Fruit globular, lateral. On the coast frequent.
14. *Saccharinus. Sweet Fucus.* Stalk cylindrical, very short. Leaf long, ensiform, simple, thick. On the coast.
15. *Palmatus. Handed Fucus.* Leaf plane, resembling a hand. On the coast frequent.
16. *Rubens. Red Fucus.* Stalk branched, cylindrical. Leaves oblong, undulated, sinuated. On the Cornish coast.
17. *Furcellatus. Sharp-pointed Fucus.* Cylindrical, dichotomous. Branches equal, long, acute. On the coast frequent.
18. *Filum. Thread Fucus.* Simple, filiform, opaque, brittle. On rocks on the coast.
19. *Hirsutus. Hairy Fucus.* Filiform, much branched, intirely covered with hairs scarce visible to the naked eye.

20. *Aculeatus. Prickly Fucus.* Linear, filiform, with many branches, compressed; lateral margins with teeth erect, subulate. On the coast of Cornwall.
21. *Ciliatus. Fringed Fucus.* Flat, branched, membranous, reddish. Leaves narrow, fringed with long hairs. On the coast.
22. *Sanguineus. Dock-leaved Fucus.* Stalk cylindrical, branched. Leaves oblong, pointed, waved, intire. On the coast.

ULVA. Fructifications in a diaphanous membrane. *Habit.* Immersed, sub-diaphanous, sessile, without root.

1. *Pavonia. Turkey-feather Laver.* Flat, reniform, striated crosswise. *Syst. Nat.* 719.
2. *Intestinalis. Gut Laver.* Tubular, simple. In salt ditches on the coast.
3. *Compressa. Flat Laver.* Tubular, branched, compressed. On rocks and stones on the coast.
4. *Confervoides. Jointed Laver.* Filiform, tubular, jointed, with branches compressed, alternate. On the Cornish coast.
5. *Latissima. Curled Laver.* Oblong, flat, undulated, membranous, green, sometimes purple. On the coast.
6. *Lactuca. Green Laver, or Oyster-green.* Aggregate, membranous, pallid, palmated. Segments again divided into leaves undated, oval, obtuse, pellucid. In the sea.
7. *Um-*

7. *Umbilicalis*. *Navel Laver*. Flat, orbicular, sessile, coriaceous. On rocks, &c. on the coast.

8. *Linza*. *Ribbon Laver*. Oblong, deeply wrinkled. On the coast near Shoemess, &c.

9. *Granulata*. *Bladder Laver*. Spherical, aggregate, green. On the edge of ponds and ditches.

CONFERVA. Fructification tubercular, unequal, dispersed, on long capillary fibres, either sessile or floating.

* *Filaments simple, equal, without joints.*

1. *Rivularis*. *River Conferva*. Very long, slender, deep green.

2. *Fontinalis*. *Spring Conferva*. Brown, soft, not quite a finger's length. In the New River, near Hornsey.

** *Filaments branched, equal.*

3. *Bullosa*. *Cotton Conferva*. Filaments slender, green, intricate, including air-bubbles. In stagnant water frequent.

4. *Canalicularis*. *Mill Conferva*. Slender, green, most branched towards the base. In pure streams, and mill-troughs or spouts.

5. *Amphibia*. *Amphibious Conferva*. Filamentous, spongy, forming when dried into spines. On the banks of the Thames.

6. *Æruginosa*. *Sea-green Conserua*. Capillary, about two inches long, soft, fine green. On the coast.

7. *Dichotoma*. *Bristle Conserua*. Like bristles, forked. In ditches.

8. *Scoparia*. *Broom Conserua*. Filaments proli-ferous, fastigiata, pinnated. On the coast.

9. *Cancellata*. *Latticed Conserua*. Filaments al-ternate, short, multipartite, fingered. On the coast.

*** *Filaments anastomosing*.

10. *Reticulata*. *Net Conserua*. Soft; filaments uniting like a net. In rivulets, on Hounslow-Heath, &c.

**** *Filaments knotted*.

11. *Fluviatilis*. *Horse-tail Conserua*. Simple, lubricous, slender, taper, straight, with joints angular, or knots. In a rivulet near Bangor in Wales.

12. *Gelatinosa*. *Frog-spawn Conserua*. Branch-
ed, spindle-shaped, with globose, gela-
tinous knots. In clear springs.

***** *Filaments jointed*.

13. *Capillaris*. *Thread Conserua*. Simple, with joints alternately compressed. In salt ditches.

14. *Corallinoides*. *Coralline Conserua*. Dichoto-
mous, gelatinous, reddish. On the
coast frequent.

15. Poly-

15. Polymorpha. *Palmated Conserua*. Lubricous, black, with short palmated branches. On the coast.
16. Vagabunda. *Spreading Conserua*. Branches short, expanded like wool. In salt marshes or bogs.
17. Glomerata. *Cluster Conserua*. Much branched; branches short, multifid, rough. On the coast.
18. Rupestris. *Rock Conserua*, or *Sea Bread*. Branches alternate branched again, green. On the coast, and in rivers on rocks frequent.
19. Ægagropila. *Globe Conserua*, or *Moor-Balls*. With many branches from the centre, forming a globe. In lakes on mountains in the north.

BYSSUS. Simple down or powder.

* *Filamentous*.

1. Flos Aquæ. *Paper Byssus*. Filaments feathered, expanded. On stagnant water, like paper.
2. Phosphorea. *Violet-coloured Byssus*. Like down on old trees.
3. Velutina. *Velvet Byssus*. Like green velvet, on the bark of trees and old gravel walks.
4. Aurea. *Saffron-coloured Byssus*. Capillary, dusty; filaments some branched, others simple. On rocks.

* * Powdery.

5. Antiquitatis. *Black Powder Byssus*. On old walls frequent.
6. Saxatilis. *Stone Byssus*. Grey or ash-colour. On all stones long exposed to the air.
7. Candelaris. *Yellow Byssus*. On trees and old walls every where.
8. Botryoides. *Green Byssus*. On the bark of trees and wet ground.
9. Incana. *Mealy Byssus*. Like meal, on gravelly ground, ditch-banks, &c.
10. Lactea. *White Byssus*. Crustaceous, like lime. On trees and mosses.

IV. FUNGI, *Mushrooms.*

AGARICUS. Horizontal, with lamellæ or gills beneath.

* *With a stem; head orbicular.*

1. Chantarellus. *Yellow Agaric, or Champignon*. Lamellæ, or rather veins, branched, decurrent. Pale-yellow, contorted. Head depressed in the centre, deformed. Stem short. Of an agreeable taste. In pastures, woods, &c.
2. Integer. *White Agaric*. Head a little concave at the top, purplish. Stalk and gills white; lamellæ equal. In woods.

3. Mus-

3. *Muscarius. Red Agaric.* Stalk white, very long, from a large bulb, with an annular membrane, which soon disappears. Head first campanulate, then plane, sometimes near a foot in diameter, blood-red, warty, striated at the edge. Gills white; lamellæ slender, white, numerous. Fœtid, said to be poisonous. In the meadows between Hampstead and Highgate.
4. *Lactifluus. Milky Agaric.* Stem long, flesh-colour. Head flesh-colour, a little concave, raised at the edge. Gills reddish brown. Contains a sweetish milk. Taste agreeable, and not pernicious. In woods.
5. *Piperatus. Pepper Agaric.* Large. Head almost flat, first white, then brown, containing a very acrid milk. Gills pale flesh-colour. In woods.
6. *Campestris. Common Mushroom.* Head convex, scaly. Gills deep flesh-colour. In pastures frequent.
7. *Violaceus. Violet Agaric.* Stem short, thick, downy, bulbous. Head very large, pale purple, convex. Esculent. Near woods, in meadows, &c.
8. *Cinnamomeus. Brown Agaric.* Head flat, brownish-yellow. Gills yellowish-brown. In woods frequent.
9. *Viscidus. Slimy Agaric.* Stem white, thick. Head convex, purplish-brown, viscid. In woods.

10. Equi-

10. *Equestris*. *Starry Agaric*. Small. Head convex, pallid; disk starred with yellow. Gills pale-yellow. On heaths frequent.
11. *Georgii*. *St. George's Mushroom*. Stalk firm, solid, with white down. Head broad, flat, powdry, white, growing gradually reddish, striated and downy at the margin. Gills white. Esculent. In woods.
12. *Mammosus*. *Grey Agaric*. Stalk long. Head conical, grey. Gills convex, grey, notched. In woods.
13. *Clypeatus*. *Long stalked Agaric*. Root bulbous, long, hooked at the end. Stalk white or grey. Head hemispherical, pointed, clammy, striated. Gills white. In woods.
14. *Extinctorius*. *Conic Agaric*. Stalk long, subulate. Head conic, torn, white. Gills white. In meadows, &c.
15. *Fimetarius*. *Egg Agaric*. Stalk long, hollow. Head campanulate, torn. Gills black. On dunghills frequent.
16. *Campanulatus*. *Bell Agaric*. Stalk long. Head campanulate, striated, pellucid, grey. Gills white. In pastures.
17. *Separatus*. *Blackish Agaric*. Stalk bulbous. Head small, smooth, livid. Gills blackish. On dunghills.
18. *Fragilis*. *Brittle Agaric*. Small. Head convex, clammy, pellucid, yellow. Gills deep-yellow. On heaths.

19. Um.

19. *Umbelliferus*. *Wood Agaric*. Small, white. Head convex, membranous, plicated, pellucid. Stalk long, slender. Among old leaves in woods.

20. *Androsaceus*. *Black-stalked Agaric*. Differs from the last in having a black stem. On rotten wood.

** *Parasitic, without stem, with half a head.*

21. *Quercinus*. *Oak Agaric*. Large, convex, hairy, colour various. Gills generally white, stiff, labyrinthiform. On the trunks of oak and other trees.

22. *Betulinus*. *Birch Agaric*. Coriaceous, hairy, margin obtuse; lamellæ branched, communicating with each other. On the trunks of various trees.

23. *Alneus*. *Alder Agaric*. Hairy, grey; lamellæ thick, bifid, powdery. On the trunks of trees.

BOLETUS. Horizontal; porous beneath; soft and elastic, like a cushion, above.

* *Parasitic, without stem.*

1. *Suberosus*. *Cork Boletus*. White, smooth; pores acute, diffused. On birch and ash-trees, &c.

2. *Fomentarius*. *Spongy Boletus*. Unequal, obtuse; pores cylindrical, equal, bluish. On birch-trees, &c.

3. *Ver-*

3. *Vericolor. Striped Boletus.* Convex, with concentric stripes of various colours; pores white, small. On trees.
4. *Ignarius. Hard Boletus, or Touchwood.* Smooth; pores very small. On the trunks of trees.

**** With a stem.**

5. *Luteus. Yellow Boletus.* Stem annulated, grey. Head livid or brown, a little clammy; pores convex, yellow. In woods frequent.
6. *Bovinus. Brown Boletus.* Stem not annulated. Head smooth, brown; pores large, con-
spicuous, acute, greyish or greenish yellow. July. In woods.

HYDNUM. Horizontal, prickly, beneath.

1. *Imbricatum. Common Hydnum.* With a stem. Head convex, imbricated, white, thick. In woods.

PHALLUS. Reticular above, smooth beneath.

1. *Esculentus. Esculent Morel.* Stalk naked. Head oval, cellular, naked, wrinkled, whitish. Under the shade of ash and beech-trees, in the spring.
2. *Impudicus. Stinking Morel.* White. Root a bulb. Stem long. Head conic, covered at first with reticular film. In woods.

HEL-

HELVELLA. Turbinate.

1. Mitra. *Mitre Mushroom*. Stem thick, wrinkled, fistulous. Head curled, lobed, difformed. In damp woods.

PEZIZA. Campanulate, without stem.

1. Lenticifera. *Black Peziza*. Ash-colour, smooth, containing many seeds. On woods, in fields, &c.
2. Punctata. *Spotted Peziza*. Truncated, white, with black spots. On horstedang.
3. Cornuconoides. *Cornucopia Peziza*. Dark-grey, disk expanded, sinuated, spotted, membranous, two inches high. In woods.
4. Acetabulum. *Cup Peziza*. Ash-colour. Angular on the outside, with branched veins. On rotten wood.
5. Cyathoides. *Smooth Peziza*. Small, cup-fashioned. Margin obtuse, erect. In woods.
6. Scutellata. *Hairy Peziza*. Small, plane. Margin convex, hairy. On rotten wood.

CLAVARIA. Smooth, oblong.

* Undivided.

1. Pistillaris. *Simple Clavaria*. Whitish simple, like a nail. In woods, &c.
2. Ophi-

2. Ophioglossoides. *Black Clavaria*. Black, intire, compressed, obtuse.

* * Branched.

3. Digitata. *Fingered Clavaria*. Black, woody. On rotten wood.

4. Hypoxylon. *Flat Clavaria*. Cornuted, black, small.

5. Coralloides. *Yellow Clavaria*. Branches numerous, close, unequal. In woods, &c.

6. Fastigiata. *Stinking Clavaria*. Branches fastigate. Yellow. In woods, &c.

7. Muscoides. *Pointed Clavaria*. Yellow. Branches re-branched, pointed, unequal. In woods, &c.

LYCOPERDON. Roundish, replete with farinaceous seeds.

* Solid, subterraneous, without root.

1. Tuber. *Truffle*. Round, prickly. In Rush-ton-Park, Northamptonshire.

2. Cervinum. *Branny Puff-ball*. Yellow. Skin hard, thick, granular; pulp purplish, with black seeds. In woods.

* * Dusty, root above ground.

3. Bovista. *Common Puff-ball*. Dust flies off on breaking the skin. In pastures, &c.

4. Stellatum. *Star Puff-ball*. Stalk an inch and half long. Head large, white, dentated, smooth;

smooth; volva multifid. In pastures,
&c.

5. *Pedunculatum. Stalked Puff-ball.* Stalk long.
Head round, smooth. Margin intire.
In pastures frequent.

MUCOR. Vesicles on pedicles.

* *Permanent.*

1. *Sphærocephalus. Round-headed Mucor, or Mould.*
Stem filiform, black. Head grey. On
rotten wood.
2. *Lichenoides. Grey-headed Mucor.* Stem black,
subulate. Head lenticular. On rotten
wood.
3. *Embolus. Black Mucor.* A black bristle,
beset with brown hairs. On rotten
wood.

** *Fugitive.*

4. *Mucedo. Cotton Mucor.* Grey, pellucid.
Capsule globular. On stale bread, &c.
5. *Leprosus. Yellowish Mucor.* Setaceous. Seeds
radical. In vaults, &c.
6. *Glaucus. Greenish Mucor.* Head round, ag-
gregated. On apples, &c.
7. *Crustaceus. Fingered Mucor.* White. Spikes
digitated. Head and bristles watry. On
putrid meats.

F I N I S.

smooth; venter minutely. In partibus
 etc.

2. Poduncularium. Stalked. Stalk long.
 Head round; smooth. Margin minute.
 In partibus frequent.

MUCOR. Venter on pedicels.

* Perianth.

1. Sphaerocarpus. Round-headed. Head on stalk.
 Stem hollow, black. Head grey. On
 rotten wood.

2. Lichenoides. Grey-headed. Head on stalk.
 Head lenticular. On rotten
 wood.

3. Embolus. Black. Head on stalk. A black
 belt with brown hairs. On rotten
 wood.

** Fungus.

4. Mucosus. Conical. Head on stalk. Grey, pellucid.
 Capsule globose. On the bread, etc.

5. Lycopodium. Linear. Head on stalk. Seeds
 radiate. In partibus, etc.

6. Clavaria. Conical. Head round, ag-
 gregate. On apples, etc.

7. Clavaria. Conical. Head round. White. Spikes
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Wood	40	W. y. bread	40
Wood	41	W. y. bread	41
Wood	42	W. y. bread	42
Wood	43	W. y. bread	43
Wood	44	W. y. bread	44
Wood	45	W. y. bread	45
Wood	46	W. y. bread	46
Wood	47	W. y. bread	47
Wood	48	W. y. bread	48
Wood	49	W. y. bread	49
Wood	50	W. y. bread	50
Wood	51	W. y. bread	51
Wood	52	W. y. bread	52
Wood	53	W. y. bread	53
Wood	54	W. y. bread	54
Wood	55	W. y. bread	55
Wood	56	W. y. bread	56
Wood	57	W. y. bread	57
Wood	58	W. y. bread	58
Wood	59	W. y. bread	59
Wood	60	W. y. bread	60
Wood	61	W. y. bread	61
Wood	62	W. y. bread	62
Wood	63	W. y. bread	63
Wood	64	W. y. bread	64
Wood	65	W. y. bread	65
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Wood	74	W. y. bread	74
Wood	75	W. y. bread	75
Wood	76	W. y. bread	76
Wood	77	W. y. bread	77
Wood	78	W. y. bread	78
Wood	79	W. y. bread	79
Wood	80	W. y. bread	80
Wood	81	W. y. bread	81
Wood	82	W. y. bread	82
Wood	83	W. y. bread	83
Wood	84	W. y. bread	84
Wood	85	W. y. bread	85
Wood	86	W. y. bread	86
Wood	87	W. y. bread	87
Wood	88	W. y. bread	88
Wood	89	W. y. bread	89
Wood	90	W. y. bread	90
Wood	91	W. y. bread	91
Wood	92	W. y. bread	92
Wood	93	W. y. bread	93
Wood	94	W. y. bread	94
Wood	95	W. y. bread	95
Wood	96	W. y. bread	96
Wood	97	W. y. bread	97
Wood	98	W. y. bread	98
Wood	99	W. y. bread	99
Wood	100	W. y. bread	100

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